

















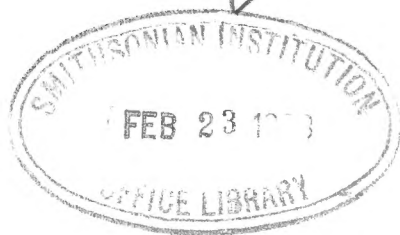
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# History of Agriculture in the Southern United States To 1860

BY  
LEWIS CECIL GRAY

ASSISTED BY  
ESTHER KATHERINE THOMPSON

*With an Introductory Note by*  
HENRY CHARLES TAYLOR



VOLUME II

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PART V  
THE DEVELOPMENT OF NATIONAL ECONOMY





## CHAPTER XXV

### AGRICULTURAL CONDITIONS DURING THE REVOLUTIONARY PERIOD

Economic Conditions in the South on the Eve of the Revolutionary War, 571. Policies of Economic Resistance in Relation to Southern Agriculture, 573. Extent of Southern Trade during the War, 576. Food Supply and Food Production during the War, 581. Influence of Currency Depreciation on Agriculture, 586. The Tobacco Industry during the War, 589. Rice and Indigo during the War, 593.

### ECONOMIC CONDITIONS IN THE SOUTH ON THE EVE OF THE REVOLUTIONARY WAR

In Southern economic life the year 1775 was the end of an epoch marked by abrupt termination of long established trade and credit relationships with the mother country, beginning of a protracted war that profoundly influenced rural economy, and inauguration of a new political régime reflecting changed conceptions of government. The year 1795 marked the approximate beginning of another epoch characterized by the important changes that flowed from the development of the upland cotton industry and to a less extent of its sister industry, sugar, also born about that time.<sup>1</sup> The intervening period was extremely distinctive and influential on the course of later economic development. Two of the great changes of the period—the agreement for the abolition of the slave trade and the passing of the colonial system of land policy and tenure—exerted a gradual and cumulative influence on the supply of labor and of land in later periods, with consequences so notable as to require discussion in special chapters.<sup>2</sup>

Professor Schlesinger has shown that the issues which were the occasion for protest and concerted resistance before enactment of the coercive acts of 1774 were essentially economic; but while they caused widespread depression and financial loss in the commercial Provinces, they did not bear heavily on the plantation Provinces.<sup>3</sup> Grenville's repressive legislation of 1764 involved resolute attempts to restrict smuggling, which was practiced mainly in the commercial Provinces, and to make the Molasses Act productive by lower rates and more effective administration; an increase in English duties on certain articles of foreign origin reexported to the Colonies; addition of new items to the list of "enumerated" commodities; and the prohibition of legal tender issues of currency in Provinces outside of New England.<sup>4</sup> The tax on molasses had but little significance for Southern consumers. The wealthier classes alone were affected by British duties on foreign articles of luxury. Of the articles added to the enumerated list, iron, hides, raw silk, potash, and pearlash were produced in the South, but none constituted an important article of exportation. The act against legal

<sup>1</sup> For the beginnings of these industries, see Chaps. XXIX and XXXI.

<sup>2</sup> See Chaps. XXVII–XXVIII.

<sup>3</sup> For details of the legislation and its bearing on the several Colonies, see Schlesinger, *Colonial Merchants and the American Revolution*, especially 50–56, 65, 93–96.

<sup>4</sup> *Ibid.*, 40; cf. McCrady, *South Carolina under the Royal Government*, 548. See Beer, G. L., *Old Colonial System*, II, 159–176, 189–191.

tenders, a legislative expression of a policy previously asserted through royal vetoes, was approved by wealthy and conservative colonials. South Carolina and Georgia were favored by permission to export rice to parts of America south of those Colonies.<sup>5</sup> The Stamp Act bore most heavily on the trading classes of the North. Politically, however, it "lifted the controversy from the profit-and-loss considerations . . . and furnished a common ground on which the planting provinces might join with the commercial provinces in protest."<sup>6</sup> Of similar significance from a Southern point of view were the Townshend port duties on glass, paint, paper, and tea, the latter providing a focus for feminine, as well as masculine, indignation.

Although for the Northern Colonies the contest represented a life and death struggle of two rival commercial groups, the basic policies of the British commercial system, as we have noted, were not in serious conflict with Southern economic interests.<sup>7</sup> The requirement that tobacco be shipped first to the British market had been largely mitigated by drawback allowances on reshipments. Restrictions on shipment of grain and meat to Great Britain did not seriously affect the Southern Colonies. Rice growers had been helped by the permission of direct shipment to countries south of Cape Finisterre and by removal of restrictions on trade to the foreign West Indies. While about four fifths of their product, under the Navigation Acts, first went to England, all but a small part was reexported under drawbacks. Moreover, there was said to be a great advantage in touching at Cowes, for the merchant there found a market reflecting the demand of all Europe. The same advantage was said to be involved in carrying tobacco first to England.<sup>8</sup> Indigo, naval stores, silk, and other products of the lower South were encouraged by bounties. Restrictions on colonial manufactures did not bear heavily on the South, and farmers were not prevented from supplying their own families. Nevertheless, I hardly agree with Dr. H. J. Eckenrode, the historian of the Revolution in Virginia, that the movement there was primarily political.<sup>9</sup> Economic interests had come into conflict with British policy often enough to create uneasiness at the proposed extension of economic interference. The collection of quitrents had been a source of irritation and friction in the various Southern Colonies. There was discontent with the attempted reformation of the land policy in 1773-74. Land speculators anxious to obtain large tracts were disturbed over the British policy of restricting settlement to the east of the Appalachian crest, while favoring the land companies formed by court favorites and their American associates with vast grants beyond the mountains.<sup>10</sup> There was a steadily increasing dissatisfaction with British merchants. A creditor is not usually an object of affection, and the colonists had observed with increasing uneasiness the unity of action and dominant in-

<sup>5</sup> See above, p. 285.

<sup>6</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 65.

<sup>7</sup> See above, pp. 255-258.

<sup>8</sup> Wentworth to Eden, Dec. 17, 1777, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 231, p. 15.

<sup>9</sup> Cf. Eckenrode, *Revolution in Virginia*, 38-41.

<sup>10</sup> Sioussat, "Breakdown of the Royal Management of Land in Southern Provinces, 1773-1775," in *Agricultural History*, III, 79, 82; Harrell, *Loyalism in Virginia*, 8-22.

fluence of the merchants on the British Government in promoting policies favorable to themselves. The planters strongly suspected collusion in price-fixing, both in Great Britain and in colonial markets.

Although, as Professor Eckenrode asserts, the planters as a class did not enter the Revolutionary movement as a means of escape from paying their debts, yet the readiness of some of the planters of eastern Virginia to support the movement was probably not unconnected with the gradual spread of economic depression in that region. Virginia exchange on London, usually at 15 per cent discount, fell to 30 per cent in 1773, and the Colony was drained of its supply of specie. The desires of a large proportion of the population for cheap money or for stay laws and other obstacles to debt collection were constantly thwarted by the influence of British merchants<sup>11</sup> seconded by a comparatively small number of wealthy planters. The moneyless pioneer populations of Colonies like North Carolina were alarmed by attempts at increased taxation. The fee system, maintained in the interest of the governing classes, had been a continual occasion for friction between popular parties and the conservative groups. The various Colonies had been repeatedly disappointed in attempts to restrict the slave trade and to debar the importation of criminal servants. In spite of the comparatively favorable effect of the British navigation system there was a growing interest in greater freedom of trade. Domination of the Indian trade by a small number of merchants in league with a few influential planter politicians was an object of resentment by frontiersmen. Failure of provincial governments to provide judicial machinery and police protection for the back country forced the pioneers to resort to the lynch law of the Regulators' Movement. The Anglican establishment was despised by the growing population of dissenters.<sup>12</sup>

Undoubtedly these various elements of dissatisfaction constituted a subconscious background of discontent. One must give weight also to the gradual development of commercial ties and intercourse between the several Colonies, the increasing proportion of the population that had never lived in the mother country, and especially the large number of immigrants from Germany and Ireland who had no sentimental attachment to the British Government.

#### POLICIES OF ECONOMIC RESISTANCE IN RELATION TO SOUTHERN AGRICULTURE

Various measures of economic resistance between 1764 and 1774 gradually reduced the commercial dependence on Great Britain while at the same time fanning the smouldering fires of dissatisfaction. Nonimportation, when first introduced, at the height of the movement against the Stamp Act, had much less application in the South than in the North. In the tobacco Colonies imports declined from £515,192 in 1764 to £383,224 in the following year, but mainly on account of depression. In the Colonies south of Virginia there was no decline, and although in one or two instances mob violence sought to prevent imports,

<sup>11</sup> Cf. *Idem*, "Some Neglected Phases of the Revolution in Virginia," in *William and Mary Quarterly*, 2 series, V, 167.

<sup>12</sup> For a detailed analysis of the various elements of economic discontent, see especially Nevins, *American States during and after the Revolution*, Chap. I, and pp. 15-24, 63, 71.

no systematic enforcement developed.<sup>13</sup> Although the Townshend Acts of 1767 were the occasion of a new and more systematic movement for nonimportation, the movement in the South, as Professor Schlesinger has shown, differed notably from that in the North. In the latter section it was a class-conscious movement of colonial merchants. In the former it was, rather, a movement by discontented planters for a consumption boycott. The movement was supported also by the more irresponsible mob, made up largely of mechanics, who in Charleston, Savannah, and at other points had developed a revolutionary spirit based on the doctrine of natural rights. This class had attained increased economic importance and prosperity due to the shutting out of British manufactures. Unlike the independent Northern merchants, the representatives of that class in the South were either partners or agents of British firms or deeply dependent financially on British mercantile houses. With a few exceptions, they opposed the movement for nonimportation and gradually became aligned with the loyalist elements.<sup>14</sup>

The nonimportation agreements affected Southern agriculture primarily through stimulating a movement for encouraging the growing of flax and hemp, and wool, including resolutions directed against the slaughter of lambs. In Virginia a treatise had been published in 1765 on the propagation of sheep and the manufacture of flax, under the authorship of John Willy, who also set up a woolen factory. Domestic textile manufactures were given a stimulus by various premiums offered in encouragement, and the partial exclusion of manufactures of leather and of various farm implements tended to encourage domestic production of those commodities.<sup>15</sup> However, enforcement of nonimportation was measurably effective only in Maryland and South Carolina, due to concentration of the commercial life at Baltimore and Charleston. The diffused commercial life of Virginia and North Carolina made enforcement difficult, and the movement in Georgia and North Carolina was not strongly supported.<sup>16</sup>

The various pre-Revolutionary policies and movements had not notably impaired the agricultural prosperity of the South. In the Carolinas and Georgia the period from the close of the French and Indian War to the outbreak of the Revolution was one of unusual prosperity and rapid expansion. Rice, indigo, and naval stores bore good prices, slaves poured into the Provinces, and the back country was filling up rapidly with farmers from the Middle and Northern Colonies and from Europe, creating a demand for foodstuffs and supplies. After recovering from the price depression following the close of the Seven Years' War, tobacco also frequently brought good prices, and with brief interruptions the importation of slaves into the tobacco Provinces was active. While the older districts suffered from soil exhaustion, this was offset in part by the development of general farming and expansion of tobacco into middle and western Virginia.

The attempt to force the importation of tea awakened a renewed resistance, and the mother country added fuel to the flame by the Boston Port Act and other

<sup>13</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 80-88.

<sup>14</sup> *Ibid.*, 73-75, 91-93, 134-149. See above, pp. 429-433.

<sup>15</sup> *Georgia Gazette* (Savannah), Sept. 12, 1765; July 19, Aug. 16, Sept. 20, Dec. 27, 1769; McCrady, *South Carolina under the Royal Government*, Chap. XXXIII; cf. Redding, *Jonathan Bryan*, 39.

<sup>16</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 197-209, 233-236.

acts of coercion. The weapon of nonimportation was revived, and this time it was joined with the more costly weapon of an embargo on exports.<sup>17</sup> In all of the Southern Colonies the conservatives, largely under the leadership of the merchants, fought desperately to obstruct or modify the Massachusetts proposals for completely restricting commercial intercourse with the mother country. Maryland made its action with reference to exportation of tobacco dependent on the agreement of other Colonies. Virginia took more radical action, including immediate nonimportation and disuse of tea, and a boycott of all articles except medicines imported from Great Britain after November 1, 1774, including Negroes. After August 10, 1775, absolute nonexportation directly or indirectly to Great Britain was to go into effect unless grievances were previously redressed. The radical element in North Carolina forced action similar, except for minor details, to the Virginia resolutions. In South Carolina the commercial element succeeded in restricting action to the selection of an uninstructed delegation to the Continental Congress. Georgia was the most reluctant of the Southern Colonies to join the Revolutionary movement. It was a frontier settlement that had depended on British military protection; it profited by subsidies from the mother country; it contained a large number of office holders dependent on British authority; and its principal staples enjoyed an unusual prosperity under the British commercial system. Consequently, the radical element failed even to secure the selection of delegates to the Continental Congress.<sup>18</sup>

The Congress that met in the early Fall of 1774 provided tentatively for a Continental association, an agreement for a sweeping suspension of imports from Great Britain and her dependencies, prohibition of consumption of articles imported in violation of the agreement, discouragement of all forms of extravagance in consumption, encouragement of the production and manufacture of wool, and an agreement to cease exportation after September 10, 1775, to Great Britain, and the British West Indies.<sup>19</sup>

South Carolina delegates fought hard to have rice and indigo excepted from the agreement. Finally a compromise was effected by which indigo was to be included in the prohibition, but the shipment of rice to Europe permitted. The sacrifice of indigo in favor of rice caused much bitterness between the two classes of producers. The delegates who had voted for the exemption of rice attempted to justify themselves on the ground that the proposal to prohibit its exportation was a scheme of the commercial Colonies to displace rice consumption in northern Europe by flour. Indigo producers demanded compensation, and producers of other commodities set up similar claims. It was finally agreed that the prices of indigo and other commodities should be maintained at fixed ratios with the price of rice.<sup>20</sup>

The exception in favor of rice appeared to be one of very great advantage to South Carolina and Georgia. In February, 1775, Richard Oswald, a loyalist merchant, estimated that by reason of the prohibition of shipping other cereals

<sup>17</sup> *Ibid.*, 306-309.

<sup>18</sup> *Ibid.*, Chap. IX; Nevins, *American States during and after the Revolution*, 48, 63-65.

<sup>19</sup> Schlesinger, *Colonial Merchants and the American Revolution*, Chap. X.

<sup>20</sup> *Ibid.*, 416-419; Drayton, *Memoirs of the American Revolution*, I, 169, 173.

to the West Indies the price of rice in the Islands would rise so high as to add £100,000 to the returns of South Carolina planters. He believed that the opulent planters of that Colony, oppressed by the fear of slave insurrection, would be very slow to join a movement involving the risks of military coercion and the loss of their valuable trade. He declared that the two rice Colonies could be detached from the Continental interest by a mild punishment in the form of an increase in British duties on rice while leaving the West India trade open and shutting out the wheat and maize of the Northern Colonies.<sup>21</sup>

Oswald had judged the drift of sentiment poorly. The tide of patriotic enthusiasm developed so rapidly that when the nonintercourse agreement went into effect, South Carolina and North Carolina forbore to ship rice, and on January 1, 1776, the South Carolina Council of Safety expressed to the Georgia Council their surprise that the Georgians had continued to ship rice after September 10th<sup>22</sup>. In the late Fall of 1774 or early in 1775 the Continental Association was ratified in all of the Southern Provinces except Georgia, where an attempt to have the assembly adopt the provisions of the Association in modified form proved abortive through prompt dissolution by the governor.<sup>23</sup>

#### EXTENT OF SOUTHERN TRADE DURING THE WAR

Inauguration of the provisions of the Association with respect to exports was the beginning of a period of approximately eight years in which export trade was either subject to domestic prohibitions or forced to run the gauntlet of a more or less effective naval blockade. During the short period between putting into effect the provisions of the Association and the outbreak of military hostilities, exports practically ceased. A few of the bolder merchants attempted evasion, but with little success. Alarmed by the course of events, the merchants pressed for debt collections, but this move was quickly met by provisions in the various Colonies to suspend legal machinery of collection.<sup>24</sup> Georgia, as already noted, for a time remained aloof, and South Carolina provided for a trade boycott against her southern neighbor, an action quickly followed by other Colonies and by the Continental Congress. The outbreak of hostilities, however, gave a great impulse to the radical movement in Georgia. In July, 1775, the Province acceded to the Association, and shortly thereafter the provisions for nonintercourse were being actively enforced.<sup>25</sup>

The outbreak of hostilities did not result in immediate modification of nonintercourse as a coercive weapon. However, the interests of the Colonies had now changed. Instead of suppressing trade, the important problem was how to encourage it, in so far as the blockade permitted, and along lines compatible with military requirements. On April 6, 1776, Congress repealed the existing

<sup>21</sup> Memorandum of Richard Oswald with respect to South Carolina, Feb. 21, 1775, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 2034.

<sup>22</sup> Drayton, *Memoirs of the American Revolution*, II, 223-225.

<sup>23</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 460-472.

<sup>24</sup> For the experiences of a Virginia merchant in this period, see Allason, *Letters* (Richmond College Historical Papers, II), 157-161.

<sup>25</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 530-536, 546-552.

trade restrictions, but there gradually developed a policy of special embargoes in particular products.<sup>26</sup>

American restrictions on trade were seconded by belligerent measures taken by Great Britain. In April, 1775, Parliament prohibited Maryland, Virginia, and South Carolina, as well as the Northern Colonies, from trading after July 20, 1775, with any part of the world except the British Isles and the British West Indies. In the following month New York, North Carolina, and Georgia were included, and in December a war measure was passed entirely closing the thirteen Colonies for trade with any part of the world, an act that went far toward breaking down remaining opposition to the radical movement in the lower South.<sup>27</sup> Henceforth, trade between the Colonies and Great Britain was rendered illegal by both parties to the struggle, except that the mother country permitted trade with those portions of the Colonies occupied by British armies.

TABLE 15.—*Value of exports of the Southern Colonies to England and Scotland from Christmas, 1769 to Christmas, 1782<sup>1</sup>*

Year	Virginia and Maryland	The Carolinas	Georgia	Florida
	£	£	£	£
Annual average, Christmas, 1769 to Christmas, 1774 inclusive.....	548,636	402,792	67,693	14,146
1775.....	758,357	579,550	103,477	21,505
1776.....	73,225	13,668	12,570	30,629
1777.....	58	2,234	.....	48,322
1778.....	.....	1,074	.....	48,236
1779.....	.....	3,732	607	23,805
1780.....	.....	708	2,251	16,486
1781.....	.....	94,368	506	30,715
1782.....	.....	14,182	6,804	30,936

<sup>1</sup> Compiled from tables in Macpherson, *Annals of Commerce*, III, 508, 518, 533, 550, 564, 585, 599, 614, 632, 651, 673, 706, 727. Fractions are given in nearest pounds sterling.

The official value of the exports of the Southern Colonies to England and Scotland for the various years of the war, as compared with the five years just preceding the year 1775, are shown in Table 15. These statistics indicate that between Christmas, 1774, and the application of the Association's prohibition of exports, September 10, 1775, the merchants were active in shipping out products comprising a higher aggregate in the year ending Christmas, 1775, than the average of the preceding five years. There was a great falling off in 1776, although considerable exports from Virginia and Maryland were officially acknowledged for that year. It is possible that the tobacco and other crops carried off by Dunmore in the early part of 1776 were included in the list of British imports from Virginia. It could hardly have included the indirect trade via neutral islands. The large increase in volume of exports from Florida in 1777 as compared with previous years, suggests that probably crops from southern

<sup>26</sup> Sumner, *Financier and Finances of the American Revolution*, I, 114. See below, p. 582.

<sup>27</sup> Schlesinger, *Colonial Merchants and the American Revolution*, 538-540; Drayton, *Memoirs of the American Revolution*, II, 177-179.

Georgia were being included. From 1777 to 1780 inclusive exports of the Carolinas and Georgia were negligible. In 1781 eastern South Carolina, being largely occupied by British armies, exported a little more than a fifth of the pre-war volume of exports, while the exports of Georgia remained negligible until the following year, when there was some recovery. Exports of the former Province declined to a much smaller figure in 1782.

There was considerable illicit trade with Great Britain and the British West Indies. In 1779, for instance, North Carolina authorities were complaining of illicit trade between that Province and Jamaica.<sup>28</sup> The practice of carrying on illicit trade by means of collusive captures became sufficiently extensive to be made an object of Congressional legislation designed to check it. The British were encouraging the practice, introducing manufactures and drawing from the Colonies their scanty supply of currency.<sup>29</sup> A considerable indirect trade in tobacco, naval stores, and other products was carried on with Great Britain by way of the foreign West Indies, especially the Dutch island of St. Eustatius. After the Dutch entered the war, the Danish island of St. Thomas became a focal point; but perhaps most important of all was the British island of Tortola. After Spain entered the war provisions became very scarce in Cuba and other Spanish possessions in the West Indies, creating an important market for American food products.<sup>30</sup>

While encouraging in every possible manner the establishment of gunshops, powder mills, and cloth factories, the Revolutionary commonwealths were compelled to buy largely abroad. The scarcity of specie, the futility of employing bills of exchange on England, and the lack of credit of the commonwealths left them no alternative than to ship commodities in payment. Councils of safety and their various political successors engaged actively in buying up agricultural commodities for export on public account. Thus, the Maryland Council maintained a regular correspondence with the mercantile firm of Harrison and Van Bibber operating in the foreign West Indies. The authorities were active in chartering ships, buying flour, tobacco, and other commodities, and consigning the cargoes to their West Indian representatives, from whom in turn they received shipments of military stores, salt, and other needful articles.<sup>31</sup> Virginia and North Carolina pursued a similar policy, and the former Colony, in addition to maintaining a trade agent in San Domingo, proposed to the Governor of Cuba the opening of a trade from the western settlements by way of New Orleans.<sup>32</sup>

Congress also engaged in buying up agricultural products and exporting them as a means of purchasing supplies. Robert Morris especially was active in shipping cargoes of tobacco to Europe by arrangement with British and Dutch traders.

<sup>28</sup> *North Carolina State Records*, XIV, 252.

<sup>29</sup> *Ibid.*, XVI, 356; United States, *Journals of the Continental Congress*, XXII, 341, 383-384, 392; cf. Sumner, *Financier and Finances of the American Revolution*, I, 131.

<sup>30</sup> Macpherson, *Annals of Commerce*, III, 589-591, 658; cf. Lee, W., *Letters*, II, 370. See also below, p. 580.

<sup>31</sup> For instances, see *Maryland Archives* (Coun. of Safety), XI, 99; XII, 321, 424, 467; (State Coun.), XXI, 84; cf. Bond, *State Government in Maryland*, 80 *et seq.*

<sup>32</sup> Virginia, *Official Letters of the Governors*, I, Patrick Henry, 41, 195, 206-208; *Virginia Statutes* (Hening), X, 15, 291; Rowland, *George Mason*, I, 217; *North Carolina State Records*, XIII, p. iv; XIV, p. iv: cf. Nevins, *American States during and after the Revolution*, 557.



In 1777 the French Farmers General indirectly loaned the American Congress a million livres to be repaid in tobacco. In February, 1779, a committee of the Congress charged with the purchase of 3,000 hogsheads of tobacco for exportation were taken to task for hesitating to complete the purchase because prices had risen so high.<sup>33</sup> Throughout the earlier years of the war a secret committee of Congress advanced upwards of \$2,000,000 for the purchase and exportation of products, handled through the firm of Willing, Morris, and Company. Robert Morris and his associates entered into contracts with "many gentlemen, from New Hampshire to Georgia" to furnish these supplies.<sup>34</sup>

About the middle of the war the policy of governmental trade broke down, partly through loss of public confidence, but mainly because of heavy losses through captures and increasing difficulties of obtaining supplies on account of the growing reluctance of farmers to sell their products for Continental currency.<sup>35</sup> The business of running the blockade was precarious, and markets in the foreign West Indies were so narrow that official shipments were likely to encounter a glut on arrival.<sup>36</sup>

While the British nominally maintained a blockade of all the Colonies, it was only partially effective in the South, particularly in the earlier years of the war. The long and tortuous coast line of Maryland and Virginia was unusually difficult to watch, and both Colonies provided naval vessels for guarding the coast. Undoubtedly a considerable volume of commerce found its way in and out of their harbors. In 1778 British adherents preyed upon commerce in Chesapeake Bay, but the Maryland Assembly reorganized the navy and effectually cleared the Bay of enemy privateers. Early in 1779 the navy of the commonwealth appeared unable to cope with the enemy. Accordingly the merchants of Baltimore cooperated in clearing the Bay of hostile privateers. Afterwards the State sold its navy; then British depredations became so great that at one time more than twenty vessels were shut up in Patuxent River, afraid to venture out. After a time steps were taken to organize a more adequate force, but conditions grew much more serious in the latter part of the war, when the British had transferred their attention to the Chesapeake region. In June, 1781, George Mason wrote his son George: "Our bay and rivers are entirely in the possession of the enemy, our little trade totally at an end, and almost all the Virginia vessels taken."<sup>37</sup>

The coast line of North Carolina was somewhat easier to blockade, for large vessels were forced to pass through two or three narrow inlets. For small coasting ships and vessels capable of venturing to the West Indies, there were a num-

<sup>33</sup> United States, *Journals of the Continental Congress*, XI, 139; XIII, 70, 186; XXV, 792.

<sup>34</sup> For a description of this activity and the resulting charges of fraud and corruption, see Sumner, *Financier and Finances of the American Revolution*, I, 105, 223-227; Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 27; United States, *Journals of the Continental Congress*, XIII, 46, 49, 65, 164-176. See also Waln, *Robert Morris* (Sanderson, *Biography of the Signers to the Declaration of Independence*, V), 208; Oberholtzer, *Robert Morris*, 166-171.

<sup>35</sup> Sumner, *Financier and Finances of the American Revolution*, I, 50, 128; II, 212-214.

<sup>36</sup> For instances, see *Maryland Archives* (Coun. of Safety), XII, 387, 457; *North Carolina State Records*, XIV, 299; XV, 337.

<sup>37</sup> Bond, *State Government in Maryland*, 82-85; Rowland, *George Mason*, II, 13; Eckenrode, *Revolution in Virginia*, 209, 255; Lee, R. H., *Memoir*, I, 233-235; George, "Virginia Loyalists," in *Richmond College Historical Papers*, I, 198. See also below, p. 591.

ber of other passages, and trade to the Islands seems never to have ceased entirely. In the Autumn of 1777 the trade carried on by the Carolinas was described as "amazing." In 1778 vessels passing through Ocracock Inlet reached Edenton and Newbern every month in the year, and occasional ships arrived at Wilmington. French and Bermudian vessels "frequently" arrived "with valuable cargoes," and it was declared that Maryland and Virginia had been supplied from that quarter and the "Rebel army" had "received every necessary in that round about way." Toward the latter part of the year British ships were sent to blockade Ocracock Inlet, but a considerable trade in foreign goods was still maintained with Charleston, carried by hundreds of wagons.<sup>38</sup> The breakdown of the trade of the Colony in the last two or three years of the war was due partly to harsh and restrictive policies applied to resident merchants, who complained in 1781 that commandeering of their tobacco and other stores, tobacco conflagrations, depredations of the enemy, captures at sea, and general interruptions of trade "reduced *Commerce* almost to the last gasp." Inspection laws had been allowed to fall into disuse, and there was a lack of proper regulation of commerce, particularly of protection against desertion of crews. These conditions greatly discouraged trade.<sup>39</sup> During the British-Tory régime of Colonel Craig, however, and even after Craig was expelled, the merchants of Wilmington "reaped a golden harvest," carrying on an active trade with Charleston, still occupied by the British.<sup>40</sup>

By reason of the virtual concentration of commerce at a single port in each Colony effective blockade of South Carolina and Georgia was relatively much easier than in the case of the other three Colonies. Before the repulse of the British fleet at Sullivan's Island trade was carried on briskly and the necessities of life from abroad were had in abundance.<sup>41</sup> Afterward a desultory blockade of the harbors of Charleston and Savannah was maintained. Direct trade with England had ended a year earlier. Apparently, enemy cruisers watched Savannah less closely than Charleston. For some months in 1777 there was a general embargo on shipments from Savannah, and in 1778 an embargo in both Colonies on exports of food. Adventurous merchants sent out vessels to the Dutch and French West Indies. A number of vessels were also employed in trade with the Bermudas for salt and other necessities. Nevertheless, foreign goods became so scarce and high that the safe arrival of two vessels yielded profits sufficient to offset the loss of one. The Indian trade was largely suspended because of lack of truck. There was also a great lack of such agricultural requirements as axes, sickles, files, harness, horse collars, trace chains, and whips. In November, 1779, dry goods in Charleston sold for twenty-five to forty times their purchase price in foreign markets. A considerable trade developed with France, but the risk was great. Out of sixteen vessels loaded

<sup>38</sup> Letters of John Creedon, Nov. 14, 1777, and Jan. 28, 1778, in North Carolina, Historical Commission, *Calendar of Manuscript Collections*, I, 7-8; letter of Hugh Williamson, in Duke University, *Historical Papers*, XIII, 113; *North Carolina State Records*, XIII, Pref., pp. iii-iv; XIV, Pref., p. iv; XV, Pref., p. viii; McRee, *James Iredell*, I, 373.

<sup>39</sup> *North Carolina State Records*, XV, 366, 600-602; XVII, 38; XXII, 556.

<sup>40</sup> McRee, *James Iredell*, II, 3.

<sup>41</sup> Drayton, *Memoirs of the American Revolution*, II, 277.

with South Carolina products only four arrived in France, and out of eight engaged in Bermuda trade, all were captured. For a time these heavy losses discouraged the contraband trade. In September, 1778, according to Joseph Clay, there was little or no foreign trade from Savannah, but a considerable internal trade was maintained with Charleston. The latter city was the source of supply of foreign goods for a large territory to the northward, reaching at times as far as New Jersey. Nevertheless, the trade of both Colonies was greatly reduced as compared with pre-war conditions.<sup>42</sup> The capture of Charleston by the British led to an increased prosperity for the city. Merchants flocked thither, bringing with them large quantities of foreign goods and an abundant supply of specie. After the British had overrun a considerable part of South Carolina, the way was open to export such agricultural commodities as could be had. When the Americans again began to reconquer the low country, trade stagnation prevailed until the British evacuation.<sup>43</sup>

In short, during the earlier years of the war there was a considerable, though reduced, activity of trade in the Southern Colonies. As a source of supply of foreign goods for the conduct of the war and a basis for financing it, this trade was of sufficient significance to constitute an important reason for the British policy after 1779 of making the South a more important sphere of operations.<sup>44</sup> In consequence Southern trade was nearly annihilated, except for commodities produced within the zone occupied by the enemy. By 1782 practically all trade except in provisions to the West Indies and tobacco to Europe had been exterminated. The tobacco trade was being carried on in a small way at heavy cost, insurance alone being 40 per cent of the value of vessel and cargo.<sup>45</sup>

#### FOOD SUPPLY AND FOOD PRODUCTION DURING THE WAR

It has been noted that in the latter part of the colonial period there had been some increase in exports of wheat and of livestock products from the South. New England had become dependent on the Middle and Southern Colonies for part of its grain supply,<sup>46</sup> but John Adams estimated in 1775 that the thirteen Colonies as a whole had a surplus of 1,100,000 bushels of corn and 1,000,000 bushels of wheat above consumption requirements, besides livestock and fish in excess of domestic needs.<sup>47</sup> To this should be added the large quantities of rice formerly exported, except in so far as the quantity available for home consumption was reduced by contraband trade or by lessening of production due to war conditions. Excepting rice, the proportions of pre-war exports of food and fiber to total do-

<sup>42</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 13, 22-25, 29, 39, 59, 62, 104, 156; Ramsay, *History of South Carolina*, II, 235-237; McCrady, *South Carolina in the Revolution, 1775-1780*, pp. 216-221; *Colonial Records of Georgia*, XV, 646, 653.

<sup>43</sup> *Ibid.*, 549; Ramsay, *History of South Carolina*, II, 235-237; *Royal Gazette* (Charleston), May 2, 1781.

<sup>44</sup> Germain to Clinton, Mar. 8, 1778, in Stevens, B. F., *Facsimiles of Manuscripts in Foreign Archives relating to America*, No. 1062, p. 18; cf. Marks, *England and America*, II, 866, 990; Nevins, *American States during and after the Revolution*, 331.

<sup>45</sup> United States, *Journals of the Continental Congress*, XXII, 263-274.

<sup>46</sup> Stine, *Economic History of Wheat in the United States* (Manuscript in Bur. of Agric. Econ., U. S. Dept. of Agric.).

<sup>47</sup> Letter to James Warren, Oct. 20, 1775, in Burnett, *Letters of Members of the Continental Congress*, I, 239.

mestic production had been small, and the surplus was easily eliminated by the extra demand of armies and disorganization of production and commerce. Consequently from a comparatively early period the Continental Congress and the various State governments placed embargoes on exports of certain food products. In November, 1775, Congress authorized the Secret Committee to export to the West Indies anything but horned cattle, sheep, hogs, and poultry. A fortnight later a limited trade in food products in exchange for salt and munitions was authorized with the Bermudas.<sup>48</sup> In June of the following year Congress prohibited exportation of salt beef and pork.<sup>49</sup> In 1778 a general scarcity of provisions led Congress to propose a sweeping embargo on grain and other provisions from June 10, 1778 until November 15, 1779.<sup>50</sup> Within a few months the various Southern States had complied with this request, and the policy appears to have been generally in vogue throughout the remainder of the war, with occasional suspensions for particular purposes. From time to time, however, there were complaints that it was evaded.<sup>51</sup>

In 1776 the Pennsylvania wheat crop was said to be the worst ever known, and there was so little available for sale that wheat merchants purchased Maryland and Virginia tobacco to give employment to their ships.<sup>52</sup> In 1777 grain appears to have been fairly abundant in the Middle Colonies, if we may judge by the reports for Maryland, excepting rye, which was high in price because of the great increase in demand for purposes of distillation.<sup>53</sup> The year 1778-79, however, was particularly critical because of shortage in commercial supply of grain. The wheat crop of 1778 in Maryland, Virginia, and North Carolina had been seriously damaged by the fly.<sup>54</sup> The Maryland Assembly prohibited distillation of grain, and the governor wrote the governors of neighboring States urging them to do likewise. While there was no great danger of internal scarcity in Maryland, crops had been far from bountiful. The general scarcity had been rendered acute by the requirements of the army and the necessity of supplying New England. This section was in serious straits, and the Massachusetts Board of War had authorized the expenditure of £60,000 lawful money to purchase flour in Maryland.<sup>55</sup> Large contracts of flour were also being filled in Maryland and other nearby States to supply the French fleet in the West Indies,

<sup>48</sup> Sumner, *Financier and Finances of the American Revolution*, I, 125.

<sup>49</sup> *Ibid.*, 133; Burnett, *Letters of Members of the Continental Congress*, I, 494.

<sup>50</sup> United States, *Journals of the Continental Congress*, XI, 569; cf. Sumner, *Financier and Finances of the American Revolution*, I, 132-137.

<sup>51</sup> *Ibid.*, 138-140; Bond, *State Government in Maryland*, 86-89; *Maryland Archives* (Coun. of Safety), XVI, 55-59; (State Coun.), XXI, 195; XLIII, 283, 309; Nelson, T., *Letters* (Va. Hist. Soc., Publications, new series, I), 19; *North Carolina State Records*, XIII, Pref., pp. iii-iv; Hubbard, *William Richardson Davie*, 65; *Virginia Statutes* (Hening), IX, 474, 530; *Virginia, Calendar of State Papers*, I, 445; II, 395; *South Carolina Statutes* (Cooper), IV, 447, 507; *Georgia, Revolutionary Records* (Exec. Coun.), II, 79; *Virginia, Official Letters of the Governors*, II, Thomas Jefferson, 290; III, Thomas Nelson, 35; letter of Henry Laurens to R. Lowndes, Sept. 15, 1778, in Burnett, *Letters of Members of the Continental Congress*, III, 407, 411.

<sup>52</sup> Robert Morris to Silas Deane, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 1397, p. 10.

<sup>53</sup> *Maryland Archives* (Coun. of Safety), XII, 275; Rowland, *Charles Carroll of Carrollton*, I, 210.

<sup>54</sup> Jay to Lowndes, Dec. 18, 1778, in Burnett, *Letters of Members of the Continental Congress*, III, 541.

<sup>55</sup> *Maryland Archives* (State Coun.), XXI, 267, 328; cf. *Virginia, Official Letters of the Governors*, I, Patrick Henry, 357.

under special exemption from the embargo. In order to meet the needs of the American army, the Maryland authorities were compelled to seize a portion of the flour collected for the French fleet. This led to forceful protest by the French diplomatic representatives and a somewhat acrimonious controversy.<sup>56</sup>

The outlook was particularly serious in the late Winter of 1779 because of frost damage to growing grain. Fortunately, crop conditions continued to improve from this time, for on June 14 it was asserted, "Crops are very promising throughout the Continent." Nevertheless, in October, farmers of Maryland were asking 7 shillings 6 pence in specie for wheat. In July, 1782, there was again complaint as to the poor outlook for grain crops in Virginia.<sup>57</sup>

Eastern South Carolina and Georgia had been a grain importing region before the war, and hostilities rendered the supply at times precarious. In the Spring of 1774 unfavorable crop conditions caused grain to be so scarce that the Charleston Committee of Safety passed a resolution that no Indian corn should be exported except by persons having plantations in Georgia and for the use of those plantations, nor any rice except to complete the loading of vessels in port.<sup>58</sup> In November, 1779, flour at Charleston was reported very scarce.<sup>59</sup> In 1782 conditions were particularly acute, due probably to disorganization and systematic devastation by the British army. In Georgia during the early months commissioners were authorized to impress corn and to procure supplies of rice from South Carolina. In Charleston, at the assize of bread, the price of flour of first quality was reported in May, 1782, at 28 shillings sterling per hundredweight. By July 22nd it had risen to 50 shillings sterling.<sup>60</sup> Conditions were somewhat relieved by the harvest of 1782, but in May of the following year permission was granted a Savannah merchant to ship provisions to Florida only on condition that he give assurance to replace the shipment by a like quantity from South Carolina or elsewhere.<sup>61</sup>

Demands for the army and for naval vessels and the seizure and destruction of livestock by the contending forces appear to have taxed severely the available supply in particular regions. District commissaries reported from time to time difficulties in obtaining beef and pork, and on account of the lack of established systems of local slaughter for commercial use they were compelled to superintend slaughter and packing.<sup>62</sup>

North Carolina appears to have been an important source of supply of livestock and livestock products. In June, 1777, the Maryland Council of State ordered an agent to proceed to the tanyards on the border of Carolina and endeavor to purchase 1,000 to 6,000 pounds of leather for the army. In 1780 the

<sup>56</sup> *Maryland Archives* (State Coun.), XXI, 500; XLIII, 66-68, 439-442; cf. Bond, *State Government in Maryland*, 89-92.

<sup>57</sup> *Maryland Archives* (State Coun.), XXI, 374, 454; XLIII, 359; Rowland, *Charles Carroll of Carrollton*, II, 31; Jones, J., *Letters*, 94.

<sup>58</sup> *Virginia Gazette* (Williamsburg, Dixon & Hunter), July 1, 1775.

<sup>59</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 156.

<sup>60</sup> *Royal Gazette* (Charleston), May 25-29, July 20-24, 1782; Georgia, *Revolutionary Records* (Exec. Coun.), II, 316, 322, 325; cf. Nevins, *American States during and after the Revolution*, 416.

<sup>61</sup> Georgia, *Revolutionary Records* (Exec. Coun.), II, 497.

<sup>62</sup> For instances, see *Maryland Archives* (Coun. of Safety), XII, 500; XVI, 48-51, 55, 61; (State Coun.), XVI, 272, 509; XXI, 261; XLIII, 32; Virginia, *Calendar of State Papers*, III, 39.

executive of Virginia ordered the commissary to purchase pork from North Carolina, which "is rather scarce here, but in much greater purity there." Beef, however, was reported to be abundant in Virginia.<sup>63</sup> Climate seems to have placed the Carolinas at a disadvantage in producing salt beef and pork. In 1778 Wentworth wrote Eden as follows:<sup>64</sup>

"The Southern provinces don't suit in Climate for late salting—Even N<sup>o</sup>. Carolina in the uniform practice, & with the best Salt from the W. Indies, could not salt their Beef for Eating above two months in the year, which would keep two months in pickle. In regard to Pork, they do better, but still Virginia pork was always worth *double* price."

In 1778 North Carolina had followed the instructions of Congress in placing an embargo on shipment out of the State of livestock, as well as other food products. This proved a shortsighted measure, for the North Carolina surplus of livestock was badly needed to enable the State to obtain manufactured products from other States. In 1780 the Southern army was depending so largely on North Carolina that the droves being sent to Virginia and the Northern States were seized for its use.<sup>65</sup>

The great scarcity of salt, especially in the earlier years of the war, was one of the principal sources of difficulty in obtaining a sufficient supply of beef and pork. Time and again local commissaries reported livestock in abundance, but the number to be slaughtered seriously limited for lack of salt.<sup>66</sup> Before the war the supply of salt had been largely imported, and the Colonies were wholly unprepared to provide this vital requirement. In November, 1776, it had become so scarce that citizens in Dorchester County, Maryland, seized forcibly the surplus supplies which they believed were being hoarded by a local planter.<sup>67</sup> People of the Eastern Shore were reported to be disaffected because of unequal distribution between the Eastern Shore and the Western Shore. In the same month salt was selling by the load at 15 shillings the bushel. In July, 1777, before extensive currency depreciation had set in, it was reported to be selling at \$20 per bushel at Baltimore. Another statement dated August 12, 1777, declared that several months earlier salt had sold for £9 per bushel. By January, 1778, it had reached £15 per bushel.<sup>68</sup>

Various States early took measures to encourage the establishment of salt works, foster importation, prevent profiteering, and distribute available supplies. Virginia, for instance, experimented with manufacturing in seacoast ponds by evaporation, negotiated a trade with Bermuda, and made salt importation a State monopoly, officially distributing the commodity among the various counties. Nevertheless, it appears to have continued scarce throughout the war.<sup>69</sup> In

<sup>63</sup> *Maryland Archives* (State Coun.), XVI, 282; Jones, J., *Letters*, 49, 54.

<sup>64</sup> Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 335, p. 5.

<sup>65</sup> *North Carolina State Records*, XIV, 454, 460; cf. Nevins, *American States during and after the Revolution*, 364.

<sup>66</sup> Cf. *Maryland Archives* (Coun. of Safety), XII, 466, 469.

<sup>67</sup> *Ibid.*, 449–451.

<sup>68</sup> *Ibid.*, 484; (State Coun.), XVI, 313, 469; Rowland, *Charles Carroll of Carrollton*, I, 209.

<sup>69</sup> Virginia, *Official Letters of the Governors*, I, Patrick Henry, 17, 26, 41–42, 159, 285; II, Thomas Jefferson, 80, 276; *Maryland Archives* (State Coun.), XVI, 435; *Virginia Statutes* (Hening), IX, 122–125; Georgia, *Revolutionary Records* (Exec. Coun.), II, 4–6, 17, 60.

1781, when the British and Tories were in control of Wilmington, they imported large quantities of salt, of which the State was in dire need, and used it to influence the wavering elements of the population to support their cause.<sup>70</sup>

The production and distribution of food were affected by a serious scarcity of horses resulting from war requirements. Prior to the war producers of horses had been somewhat discouraged by the provision of the Association that sought to restrict racing as an unwarranted extravagance.<sup>71</sup> About a decade after the close of the war Brissot de Warville declared that in Virginia, where horse racing had been so prevalent in jolly colonial days, the practice had largely fallen into disuse.<sup>72</sup> An extensive demand for cavalry horses and particularly for wagon horses to serve for the increased internal commerce sprang up as a result of war. Horses became so scarce that at times the wagon masters were put to desperate straits to obtain enough to move provisions and war munitions.<sup>73</sup> In October, 1778, Washington wrote Gouverneur Morris, "A rat, in the shape of a horse, is not to be bought at this time for less than two hundred pounds."<sup>74</sup> In 1782 seven-year-old horses purchased for the army ranged from \$250 to \$400 specie apiece.<sup>75</sup>

Although the war stimulated food production and there was a generally abundant supply with the exception of occasional instances or localities, serious shortages for the army occurred from time to time. In February, 1778, the army was said to be without meat for days at a time. A few days later George Washington issued an address declaring the position of the army would be precarious without a better supply of provisions. Since they were shut off from the supply of cattle in the Eastern States, he urged the population of the Middle States, including Virginia and Maryland, to fatten immediately such stock cattle as they could spare. Quartermaster General Pickering proposed changing the ration to include more bread and less meat.<sup>76</sup>

On account of lack of refrigeration it was particularly difficult to obtain adequate supplies of fresh vegetables for the army. In 1777 the Continental authorities formed a plan for employing troops to raise supplies of potatoes, turnips, and other vegetables.<sup>77</sup>

It is improper, of course, to judge the actual status of supplies by the difficulties encountered by the Continental Congress and the States in attempting to provide for military establishments. While these difficulties were due in part to inefficiency in commissary organization,<sup>78</sup> they were by no means exclusively the result of individual incapacity nor even the indifference of States. The bi-

<sup>70</sup> McRee, *James Iredell*, I, 531. Concerning the scarcity in Virginia in 1782, see *Bland Papers* (Campbell), II, 87.

<sup>71</sup> *South Carolina Statutes* (Cooper), IV, 394.

<sup>72</sup> *New Travels in the United States*, 434.

<sup>73</sup> For instances, see Virginia, *Calendar of State Papers*, II, 414; III, 188; Hubbard, *William Richardson Davie*, 67.

<sup>74</sup> Washington, *Writings* (Sparks), VI, 80.

<sup>75</sup> *North Carolina State Records*, XVI, 581; cf. *ibid.*, XV, 631.

<sup>76</sup> *Maryland Archives* (State Coun.), XVI, 500-503, 513; Pickering, *Timothy Pickering*, I, 205. See also *ibid.*, 376.

<sup>77</sup> United States, *Journals of the Continental Congress*, VIII, 439.

<sup>78</sup> Cf. Burnett, "The Continental Congress and Agricultural Supplies," in *Agricultural History*, II, 122-128.

ographies and letters of Timothy Pickering, Quartermaster General of the Continental Army in the later years of the war, and of William R. Davie, Commissary General for the Southern Army, reveal almost superhuman exertions to deal with nearly insuperable obstacles.<sup>79</sup> The records, for instance, of the Maryland Council of Safety and its successor, the Council of State, reveal no less earnest efforts to meet the requirements of the Continental establishment.<sup>80</sup> The difficulties in respect to supply were largely due to underlying conditions. In the Southern Colonies pre-war commercial organization had existed largely for export purposes, and had consisted mainly in the movement of farm products along rivers or streams to the ports. Military operations suddenly required the concentration of commodities at strategic internal points, but the internal commercial organization was of the crudest character, consisting at best of small, widely scattered general stores. The larger merchants, for the most part, either espoused the Tory cause or were sympathetic with it. Roads suitable for effective hauling were almost nonexistent, and a large part of the agricultural regions consisted of isolated communities, engaged in an economy largely self-sufficing.<sup>81</sup> Moreover, supplies had to be obtained by means of a paper currency that in the later years of the war depreciated with bewildering rapidity.

#### INFLUENCE OF CURRENCY DEPRECIATION ON AGRICULTURE

The last mentioned condition was one of the most important causes for the phenomenon of an almost starving army in the midst of a country having an abundance of food. The Continental Congress and many of the States resorted largely to the printing press as a means of financing the war. With the exception of Maryland, the depreciation of the currencies of the Southern States was even more extreme than that of the Continental issues. While most of the other commonwealths began to turn away from bills of credit toward the end of 1777, the Southern States soon became the main theater of the struggle and were compelled to resort to desperate measures.<sup>82</sup>

In North Carolina, for instance, until the latter part of 1778, requirements of the treasury were met largely by taxes and loans. Then began a series of new issues that reached a maximum in 1781. By this time a day's labor cost the government \$250, and a horse \$12,000. By 1784 the North Carolina certificates had depreciated to 800 to 1 of specie.<sup>83</sup> Other Southern commonwealths, except Maryland, were not far behind. Between the Fall of 1780 and the Spring of 1781 Virginia legal tender issues totaled £45,000,000. In the latter year also £35,000,000 of currency not legal tender but receivable for taxes was emitted. In the Fall of 1781 these issues were practically repudiated by a provision that they must be exchanged for loan office certificates at a ratio of 1,000 to 1. The ex-

<sup>79</sup> Pickering, *Timothy Pickering*, I, *passim*; Hubbard, *William Richardson Davie*, Chaps. IV-V.

<sup>80</sup> Cf. *Maryland Archives*, XI-XII, XVI, XXI, XLIII, *passim*.

<sup>81</sup> On the extent of localism and its influence on political attitudes of the period, see Beveridge, *John Marshall*, I, 250-264.

<sup>82</sup> Cf. Nevins, *American States during and after the Revolution*, 485.

<sup>83</sup> *Ibid.*, 378, 486-492; Boyd, *The Federal Period (History of North Carolina, II)*, 3.



treme depreciation of Virginia currency occurred from 1779 to 1781.<sup>84</sup> South Carolina was more conservative in its issues, and depreciation was far less extreme than in Virginia, North Carolina, and Georgia. Nevertheless, South Carolina currency fell rapidly after April, 1777, and by 1781 the governor was forced to suspend legal tender provisions. In 1782 the legislature revoked the legal tender provisions of State currency and of Continental issues.<sup>85</sup> In Georgia depreciation of State bills of credit had become apparent by August, 1777. At that time ordinary Negro slaves were selling at £500 to £600 apiece. In May, 1778, a Savannah merchant wrote that so large a quantity of paper had been emitted by the State that its value had been "reduced to nothing." This, however, was an exaggeration, as shown by price quotations. Nevertheless, by July, 1778, Georgia currency had depreciated far below the value even of Continental currency, which was in demand as a medium for trade with other States.<sup>86</sup>

As in the World War, rapid depreciation was reflected more tardily in commodity prices than in currency exchanges. In the South Carolina table of depreciation enacted by the legislature in 1783, the value of £100 specie on May 10, 1780, in terms of average prices of rice, indigo, and slaves, was 39.6 times £100 of paper currency, but the British specie depreciation table showed that £100 specie was 65.37 times the value of £100 in paper currency.<sup>87</sup>

Nevertheless, the rise in prices of commodities everywhere was most disconcerting. While the tables of depreciation issued by the States varied in attributing the beginning of the upward movement to different months in 1777, ranging from January to September, Professor Sumner submits evidence to show that it began in the latter part of 1776.<sup>88</sup> The rate of increase of currency prices was rapidly cumulative. The Virginia depreciation table of 1781 valued commodities in specie at 1½ times the corresponding unit of currency in January, 1777; at 5 to 1 in January, 1778; at 8 to 1 in January, 1779; at 42 to 1 in January, 1780; at 75 to 1 in January 1781; and at 1,000 to 1 by December of that year.<sup>89</sup>

In September, 1776, good Virginia tobacco could still be had for 22 shillings 6 pence per hundred, not far above pre-war prices. In August, 1777, wheat was selling in Maryland at 6 shillings 6 pence a bushel,<sup>90</sup> about 50 per cent above the usual pre-war price level. In October of that year good indigo in Savannah sold for 15 to 20 shillings per pound and rice at 10 shillings per bushel. By December, rice was 20 shillings per bushel, but in August of the following year it sold for only 4 to 6 shillings in Savannah, probably due to inability to carry it to market. In May of the same year indigo was selling at 20 shillings per pound. By November, 1779, rice sold for \$31 per hundred pounds at Charleston and indigo at \$6

<sup>84</sup> Nevins, *American States during and after the Revolution*, 486, 491; *Virginia Statutes* (Hening), X, 456, 465.

<sup>85</sup> *South Carolina Statutes* (Cooper), IV, 508, 564; Nevins, *American States during and after the Revolution*, 487.

<sup>86</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 37, 77-78, 96, 104, 140; cf. Stevens, W. B., *History of Georgia*, II, 327.

<sup>87</sup> *South Carolina Statutes* (Cooper), IV, 564.

<sup>88</sup> *Financier and Finances of the American Revolution*, I, 46-51.

<sup>89</sup> *Virginia Statutes* (Hening), X, 465.

<sup>90</sup> *Maryland Archives* (Coun. of Safety), XII, 275; Rowland, *Charles Carroll of Carrollton*, I, 210.

to \$7 a pound.<sup>91</sup> From this time on the change was very rapid. In October, 1780, a Virginia act for impressment of supplies provided for paying \$66 $\frac{2}{3}$  per bushel for wheat, \$20 per bushel for Indian corn, \$200 per hundredweight for fine flour, and \$20 per pound for bacon. In February, 1780, Maryland authorities purchased wheat at £20 per bushel, flour at £70 per hundredweight, and corn at £10 per bushel.<sup>92</sup>

Alarmed by the rise of prices in 1777, Congress urged upon the States a policy of fixing maximum prices maintained by coercion. There were not lacking statesmen, including John Adams, Benjamin Rush, John Witherspoon, and James Wilson, who recognized the futility of the policy,<sup>93</sup> which in less than a year had become so apparent that it was resolved to discontinue it. In January, 1780, however, it was again proposed that the individual States be urged to fix prices of labor and commodities, at twenty times the price of 1774.<sup>94</sup>

By the latter part of 1779 and the early part of the following year the breakdown of paper currency as a means of purchasing provisions for the army was becoming more and more obvious. Many farmers refused to part with their provisions in exchange for paper but eagerly sold their products in exchange for French specie. Finding that prices in paper currency rose overnight, the farmers were naturally disposed to hoard their provisions. The authorities of Maryland were forced to a commodity currency, giving tobacco and salt obtained in tax payments in exchange for wheat, flour, and bacon.<sup>95</sup> Other Southern States had similar experiences, resorting to collection of taxes in specific commodities or to borrowing specific commodities; and Congress also asked the States for grants of specific supplies.<sup>96</sup> The system was, of course, exceedingly unsatisfactory. Farmers were inclined to deliver unsound commodities, and large quantities of food products spoiled before reaching points of consumption.<sup>97</sup> The different Southern States were compelled also to adopt the unjust and injurious policy of impressment, giving in exchange certificates of various kinds.<sup>98</sup>

The rapid rise of prices led to the evil now called "profiteering." In many cases this was merely the natural inclination of farmers and others to hold commodities for higher prices; but there was also a good deal of commercial hoarding by speculators. The various States were busy passing laws to repress engross-

<sup>91</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 58, 60, 78, 110, 156.

<sup>92</sup> *Virginia Statutes* (Hening), X, 345; *Maryland Archives* (State Coun.), XLIII, 415.

<sup>93</sup> Cf. various letters on the subject, in Burnett, *Letters of Members of the Continental Congress*, II, 237, 250-253, 529, 551.

<sup>94</sup> United States, *Journals of the Continental Congress*, XI, 569; XVI, 59; Rowland, *Charles Carroll of Carrollton*, II, 29.

<sup>95</sup> *Maryland Archives* (State Coun.), XVI, 497; XLIII, 212, 231, 259, 359, 450; Sumner, *Financier and Finances of the American Revolution*, II, 140-143; Virginia, *Official Letters of the Governors*, III, Thomas Nelson, 57-67.

<sup>96</sup> *Virginia Statutes* (Hening), X, 245, 481, 490; Hubbard, *William Richardson Davie*, 66; Reams, "Taxation in Virginia during the Revolution," in *Richmond College Historical Papers*, II, 57-62; Nevins, *American States during and after the Revolution*, 379, 473-478; 496-498; Sumner, *Financier and Finances of the American Revolution*, I, 239-246.

<sup>97</sup> Morris, R., *Diary*, II, 17 (Manuscripts, Library of Congress); Virginia, *Calendar of State Papers*, III, 188-189.

<sup>98</sup> *Maryland Archives* (State Coun.), XLIII, 63; Hubbard, *William Richardson Davie*, Chap. V; Sumner, *Financier and Finances of the American Revolution*, I, 141, 149-154; Nevins, *American States during and after the Revolution*, 381.

ment and forestalling, but it was difficult to draw the line between legitimate and illegitimate hoarding.<sup>99</sup> Little was accomplished by the policy of petty persecution other than to increase the difficulties and complexities of commerce.

The instability of the currency, scarcity of specie, and the breakdown of paper issues were serious blows to such commercial agriculture as remained. Numerous reports were received of locally abundant supplies that could not be obtained for lack of a means of purchase.<sup>100</sup> These conditions reacted on the prices of such commodities as could be sold. Thus, on May 21, 1782, Joseph Jones wrote Madison that the great scarcity of specie made trade "very languid."<sup>101</sup>

#### THE TOBACCO INDUSTRY DURING THE WAR

The conditions of the war period tended to accentuate the economic and political significance of tobacco. Of the major export crops it lent itself most readily to development of trade with neutral powers, affording great possibilities for financing the war and obtaining needed manufactured products. Indigo had been marketed mainly in Great Britain and under British bounty. France was

TABLE 16.—Officially reported imports of tobacco into England and Scotland, 1775–1783<sup>1</sup>

Year	North America	British West Indies	Foreign West Indies
	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>
1775.....	101,337,361	491,256	
1776.....	14,698,400	2,000	
1777.....	361,394	167,224	
1778.....	1,692,518	626,021	
1779.....	3,321,043	4,146,167	40,944
1780.....	985,273	10,247,272	298,130
1781.....	1,872,609	4,827,031	91,463
1782.....	1,082,067	5,070,633	289,402
1783.....	14,643,165	2,295,088	286,047

<sup>1</sup> Macpherson, *Annals of Commerce*, IV, 37.

well supplied with indigo from its West Indian possessions. Southern naval stores, which had gone largely to the mother country, found difficulty in competing with the Baltic product without the special encouragements that England had provided. Military expediency had forced the revolutionary governments to place an embargo on rice, wheat, and other provisions.

Not a little tobacco continued to reach Great Britain. Table 16 shows officially reported imports of England and Scotland from different sources for the various war years. A great deal of the tobacco from the British West Indies consisted of cargoes of American tobacco captured honestly or collusively and condemned in the prize courts of the British West Indies. Much of the remainder

<sup>99</sup> *Maryland Archives* (Coun. of Safety), XI, 96; XVI, 50; (State. Coun.), XVI, 199, 313, 505; *Virginia Statutes* (Hening), IX, 381, 385, 533, 581; X, 157, 425; Eckenrode, *Revolution in Virginia*, 102–104; Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 78; Georgia, *Revolutionary Records* (Exec. Coun.), II, 343; *Royal Gazette* (Charleston), May 12, 1781; Burnett, *Letters of Members of the Continental Congress*, II, 597.

<sup>100</sup> *Maryland Archives* (Coun. of Safety), XVI, 55; Virginia, *Calendar of State Papers*, II, 414; Sumner, *Financier and Finances of the American Revolution*, II, 138–143.

<sup>101</sup> Jones, J., *Letters*, 88.

was American tobacco carried over from the foreign West Indies to the British West Indies and thence reshipped to Great Britain. In 1780 Parliament passed an act legalizing this circuitous trade and imposing a special additional duty.<sup>102</sup> Probably a great deal of American tobacco was introduced directly into Great Britain by smuggling.<sup>103</sup>

The great importance before the war of the purchases of the French tobacco monopoly led to early negotiations for the continuance of its purchases, in exchange for military supplies. The Continental Committee of Secret Correspondence, finding the French loath to act openly in advancing supplies, instructed Silas Deane to negotiate with the Farmers General. On September 30, 1776, he wrote from Paris to Robert Morris that tobacco was rising very rapidly in price, but he was finding the Farmers General very "artful."<sup>104</sup> The American agents in Europe expected the scarcity of tobacco and other American products to exert a considerable influence on European political policies. They did not take seriously the talk of bringing large quantities of tobacco from the Ukraine, and Deane wrote that the British authorities were deceiving themselves and others in claiming that they could raise their own supply.<sup>105</sup> In October, 1776, Deane wrote the Continental Committee of Secret Correspondence, "I have promised that you will send out twenty thousand hogsheads this winter in payment for the articles wanted here." Several times subsequently he wrote urging that tobacco, rice, flour, and naval stores be sent in order to establish the credit of Congress with mercantile interests of France and Holland.<sup>106</sup>

Evidently it was not easy to carry out the agreement, for in December, 1776, the Committee of Secret Correspondence wrote Deane that the available supply of vessels was very scarce and suggested that the Farmers General send ships for tobacco or naval stores. In response Franklin, Deane, and Lee wrote the Committee that they had agreed with the Farmers General to send ships. They were to be furnished 20,000 hogsheads at the public warehouses of Virginia and Maryland at the lowest price at which it could be purchased.<sup>107</sup> In February Arthur Lee wrote the Committee he had just learned of a contract made by Thomas Morris for all the tobacco that should arrive at Nantes on the account of the Committee at a price of 70 livres a hundred. The previous agreement for official trade with the Farmers General had fallen through, much to the disappointment of the American Commissioners, who believed the tobacco trade to be "the most weighty political engine we could employ with the French court. It is absolutely necessary to the Farmers-General, and the farmers as absolutely necessary to the government."<sup>108</sup> In addition to diplomatic considerations, the French officials had been trying to drive a shrewd bargain. They had been negotiating

<sup>102</sup> Great Britain, *Statutes at Large* (Ruffhead), XIII, 561 (20 Geo. III, c. 39).

<sup>103</sup> For instance, see Lee, W., *Letters*, II, 370.

<sup>104</sup> United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 150, 161.

<sup>105</sup> Letter of Lord Stormont to Lord Weymouth, Jan. 29, 1777, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 1417; also No. 577, p. 5.

<sup>106</sup> United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 168, 174, 183, 201, 211-212.

<sup>107</sup> *Ibid.*, 241, 249, 251.

<sup>108</sup> *Ibid.*, 270, 273, 284; cf. letter of Lord Stormont to Lord Weymouth, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, No. 1417.

for tobacco with Russia, as well as with private American interests. The Farmers General were also anxious to continue the long established practice of purchasing American tobacco in England rather than directly from America. Nevertheless, in March, 1777, Franklin and Deane wrote that they had concluded a contract with the Farmers General for 4,000 hogsheads.<sup>109</sup>

The American Commissioners made arrangements also for shipment of tobacco to Spain through the port of St. Sebastian under the auspices of a Spanish mercantile firm.<sup>110</sup> Shipments were sent to Holland on account of the Continental Congress, and negotiations were carried on with Prussia for the same ends. Production in that country had been greatly reduced by establishment of a fiscal monopoly, and the quality of the tobacco was so poor that it was necessary to mix it with American tobacco.<sup>111</sup>

It is easy, however, to exaggerate the magnitude of the tobacco export trade from America. Brock estimates that Virginia exports for the entire period 1776 to 1782 inclusive were under 87,000,000 pounds, less than the exports of a single year just preceding the war.<sup>112</sup> Up to November, 1781, only 153,229 livres in tobacco shipments had been credited the American account for the million livres advanced in 1777 by the Farmers General.<sup>113</sup> As the war went on, the trade was continued with increasing difficulty. In May, 1778, the Continental Committee on Foreign Affairs wrote the Commissioners in Paris as follows:<sup>114</sup>

"Your pressing request for 5,000 hogsheads of Tobacco, is a matter as embarrassing to Congress as to yourselves. Their anxiety to get it to you is as great as yours to receive it. We have already lost vast quantities in the attempt, and thereby have furnished our Enemies gratis with what was designed for the discharging your Contract."

The increased naval and military activity in the Chesapeake region in the later years of the war made it more and more difficult to ship tobacco. In the Spring of 1782 Robert Morris showed by detailed estimates that tobacco trade carried on by armed privateers, was "a losing game, and could not be supported if the cargoes of goods brought out . . . did not, by the freight, compensate for the loss sustained on the outward bound cargoes." He proposed a plan of systematic convoy which he believed would so greatly economize cost of shipment that tobacco in Virginia would bring 4 cents a pound instead of only 3 cents.<sup>115</sup>

Evidently the great difficulties of shipping tobacco depressed prices. In 1787 Thomas Jefferson declared that two thirds of the tobacco shipped from Virginia ports had been captured, and in consequence tobacco worth formerly from 20 to

<sup>109</sup> *Ibid.*, No. 1059, pp. 1-3; No. 1370, pp. 1-3; United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 287.

<sup>110</sup> *Ibid.*, 293.

<sup>111</sup> United States, *Papers of the Continental Congress*, II, No. 137, f. 677 (Manuscripts, Library of Congress); letters of Hugh Elliot and the Earl of Suffolk, June 14, 19, 20, 1777, in Stevens, B. F., *Facsimiles of Manuscripts in European Archives relating to America*, Nos. 1457-1459.

<sup>112</sup> *Succinct Account of Tobacco in Virginia* (U. S. Census, 1880, III, *Agriculture*), 223.

<sup>113</sup> United States, *Journals of the Continental Congress*, XXV, 792.

<sup>114</sup> *Idem*, *Papers of the Continental Congress*, No. 79, I, f. 228 (Manuscripts, Library of Congress); cf. Burnett, *Letters of Members of the Continental Congress*, II, 477, 489; III, 240, 244.

<sup>115</sup> United States, *Journals of the Continental Congress*, XXII, 264-274.

30 shillings per hundred sold generally in Virginia for 5 shillings.<sup>116</sup> This statement, however, probably expressed in terms of specie, was more nearly applicable to the later than to the earlier years of the war. In January, 1777, it was reported that "long dull" tobacco was selling on the lower Potomac at 20 to 25 shillings per hundredweight. It is doubtful if depreciation of currency had yet seriously affected the price. Before the end of the month it was reported necessary to pay 25 shillings, and 5 shillings for cask. By the middle of February tobacco was from 25 to 30 shillings, and by March 35 shillings.<sup>117</sup> From this time forward currency prices changed so rapidly it was difficult for observers to know whether they were actually high or low. There was a tendency, of course, to think of each new price as high. The latter part of July, 1778, George Mason wrote Richard Henry Lee that the latter's tobacco had sold at 60 shillings, the highest price hitherto obtained; but on August 24 Mason was regretting the sale, for the price had since risen 15 shillings.<sup>118</sup>

During the later years of the war the prosperity of the industry was affected by several factors besides increasing difficulty and costliness of transport. There was a considerable development of tobacco production in Europe.<sup>119</sup> In 1779 England repealed the long standing parliamentary prohibition of production in Ireland, and a marked development resulted.<sup>120</sup> The invasions of eastern Virginia by Arnold, Phillips, and Cornwallis considerably disturbed the industry. Export duties in terms of currency were also progressively increased.<sup>121</sup> A more serious influence was the extreme fluctuation of prices. Tobacco sold in 1777 for 34 shillings per hundredweight, in 1778 for 70, in 1779 for 400, in 1780 for 1,000, and in 1781 for 2,000. Yet, these did not represent high specie prices. In January, 1779, complaint was made of the low price of tobacco in Virginia.<sup>122</sup> An official inquiry into the specie prices of Virginia tobacco indicated an average of 18 shillings 5½ pence per hundredweight in June, 1780, 16 shillings 5½ pence in October, and 16 shillings in December.<sup>123</sup> Another official account, however, in the latter part of 1780, indicates the substantial price of 25 shillings per hundred in "hard money."<sup>124</sup> In June, 1781, by reason of the great quantities destroyed in Virginia by the enemy, George Mason was expecting the price would rise "beyond anything known in the memory of man." In January, 1783, however, he had an accumulation of two years' crops which apparently he had not been able to sell.<sup>125</sup>

<sup>116</sup> Cf. Cobbett, *Porcupine's Works*, VII, 53.

<sup>117</sup> *Maryland Archives* (Coun. of Safety), XVI, 55, 67, 137, 141, 174.

<sup>118</sup> Rowland, *George Mason*, I, 295-296.

<sup>119</sup> Cf. Arnold, *History of the Tobacco Industry in Virginia*, 12; United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 187.

<sup>120</sup> Carver, *Treatise on the Culture of Tobacco*, 34-47; Macpherson, *Annals of Commerce*, III, 636, 714.

<sup>121</sup> *Virginia Statutes* (Hening), X, 13; XI, 201; Nevins, *American States during and after the Revolution*, 494-496; Reams, "Taxation in Virginia during the Revolution," in *Richmond College Historical Papers*, II, 52-58, 62; Brock, *Succinct Account of Tobacco in Virginia* (*U. S. Census*, 1880, III, *Agriculture*), 223.

<sup>122</sup> Diary of Colonel William Cabell, quoted in *ibid.*, 224; Sumner, *Financier and Finances of the American Revolution*, I, 129.

<sup>123</sup> *Virginia, Calendar of State Papers*, IV, 88.

<sup>124</sup> *Idem*, *Official Letters of the Governors*, II, Thomas Jefferson, 256.

<sup>125</sup> Rowland, *George Mason*, II, 12, 33.

## RICE AND INDIGO DURING THE WAR

The war soon brought to a close a long period of prosperity for the rice and indigo industries. In 1776 the American Commissioners in Paris urged the shipment of large quantities of rice, which they reported to be selling at exceedingly high prices. In November, 1777, the Commissioners were rejoicing over the arrival of the *Amphitrite* with nearly 1,000 barrels of rice and 20 barrels of indigo. In May, 1778, the Continental Committee on Commerce wrote the Commissioners in Paris that they had ordered several vessels to South Carolina for rice to be sent to France.<sup>126</sup>

The embargo on exports of provisions that went into effect in the Summer of 1777 included rice, and Congress recommended to South Carolina and Georgia its strict observance.<sup>127</sup> When in August of that year the Commercial Committee of Congress ordered two vessels loaded with rice to sail from Charleston, Henry Laurens, President of the Continental Congress, wrote Governor Lowndes, of South Carolina, that the Committee had acted with good intentions in order to save the credit of a correspondent in Hispaniola, but he believed that the fault for this situation lay with a "faithless Secret Committee."<sup>128</sup> On a petition of M. Gerard, the French emissary, Congress in December authorized the shipment of 6,000 barrels of rice to the French West Indies to supply the French fleet. Some of the dammed up supply of rice found its way northward for the consumption of the army.<sup>129</sup>

The occupation of the low country by the British during the greater part of the last four years of the war afforded an outlet, though still a precarious one, for the staple products of that region. In February, 1781, Governor Bull wrote that Charleston harbor was "pretty well filled with shipping which affords a comfortable appearance, of goods imported & Rice & Indigo to be exported."<sup>130</sup> In 1782, when the evacuation of Savannah by the British was imminent, the resident British merchants urged General Leslie to postpone it until the crops of that year should be gathered, including 10,000 barrels of rice.<sup>131</sup> The disorganization due to the protracted struggle, however, had prevented normal production. Although the British evacuated Charleston in December, 1782, exportation of rice from Charleston from November 14, 1783, when the first of the new rice was shipped, until August 7, 1784, was only 56,628 barrels.<sup>132</sup> In fact, for the five years beginning 1782 exports averaged less than half what they had been in the five-year period preceding the beginning of the war.<sup>133</sup>

In the earlier years of the war considerable indigo was exported. In the latter part of 1776 the market was unusually good. In October a Martinique corre-

<sup>126</sup> United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 174, 187, 201, 212, 434; Burnett, *Letters of Members of the Continental Congress*, III, 244.

<sup>127</sup> United States, *Journals of the Continental Congress*, XII, 1121.

<sup>128</sup> Burnett, *Letters of Members of the Continental Congress*, III, 372.

<sup>129</sup> *Ibid.*, II, 173, 192; III, 540; United States, Dept. State, *Revolutionary Diplomatic Correspondence* (Wharton), II, 858.

<sup>130</sup> London, P. R. O., C. O. 5/176, p. 107 (Transcripts, Library of Congress).

<sup>131</sup> *Colonial Records of Georgia*, XV, 663.

<sup>132</sup> *South Carolina Gazette and General Advertiser* (Charleston), Aug. 10, 1784.

<sup>133</sup> Cf. table of rice exports, in Appendix, p. 1030.

spondent wrote that it was constantly worth from 6 to 12 shillings per pound according to quality, and was the only article of American exports that could be shipped from that island to France.<sup>134</sup> In the late years of the war indigo was even less fortunate than rice, for, not being a food product, it was in less demand for military purposes, even though it furnished the dye for the blue of the Continental uniform.<sup>135</sup> Moreover, the separation from the mother country meant the loss of the bounty at least for those who followed the fortunes of the Colonies, although the British bounty law applicable to the British plantations in America was renewed in 1777 to continue until 1781.<sup>136</sup> It was, of course, applicable to Florida. Whether the bounty was paid to loyalists in the territory elsewhere occupied by the British armies has not been determined.

<sup>134</sup> *Maryland Archives* (Coun. of Safety), XII, 388.

<sup>135</sup> Ramsay, *History of South Carolina*, II, 212.

<sup>136</sup> Great Britain, *Statutes at Large* (Ruffhead), XIII, 118 (17 Geo. III, c. 44).



## CHAPTER XXVI

### AGRICULTURAL READJUSTMENT, 1783-1795

Material Losses of the South from the War, 595. Disorganization of Property Relationships and Financial Confusion, 596. Reestablishment of British Commercial Predominance, 599. Tobacco Industry, 1783-1795, 602. The Shift from Tobacco to Wheat in the Old Tobacco Regions, 606. Further Expansion of Grain Production, 608. Rice and Indigo after the Close of the War, 610. Other Changes in Agricultural Industry, 611. General Economic and Social Changes of the Period, 613. Change in the Status of Slavery, 615.

### MATERIAL LOSSES OF THE SOUTH FROM THE WAR

As concerns territory overrun and devastated by the enemy, the various Southern commonwealths fared very differently. Maryland was largely free from enemy encroachments except for sporadic outbreaks of Tories on the Eastern Shore and Lord Howe's march from the head of Elk to Philadelphia. The shores of the Chesapeake and Potomac had been troubled by occasional raids, but these were not very serious before 1780.<sup>1</sup> By reason of this immunity Maryland was enabled to serve as an important reservoir of supplies and men. Until the latter part of 1780 Virginia also was comparatively free from devastation. Dunmore's forces had been driven out of the vicinity of Norfolk in 1776, but for some time isolated plantations on the coast suffered from semipiratical attacks by Tories. At the close of 1780 and during the first half of 1781 the lower James and York rivers were the scene of the operations of Arnold, Phillips, and Cornwallis, who pursued a policy of systematic devastation. Upwards of 10,000 hogsheads of tobacco were destroyed, stores were seized, houses burned, and thousands of livestock and slaves carried away.<sup>2</sup> With the exception of Tarleton's brief raid to Charlottesville and sporadic Tory uprisings, middle and western Virginia were practically immune. After the defeat of the Tories at Moore's Creek early in 1776 North Carolina was largely free from serious disturbance until Cornwallis invaded the State in 1780, when the west central part suffered heavily from the contending armies and Tory uprisings. The lower Cape Fear region suffered severely while Cornwallis occupied Wilmington, and from Tory depredations for some time afterward.<sup>3</sup>

South Carolina and Georgia were the heaviest sufferers. In the latter part of 1775 and early half of 1776 the back country of South Carolina was seriously disturbed by Tory uprisings and the menace of Indian attack. In the latter part of 1776 Williamson crushed the Cherokees and put down the Tories, and, after the repulse of the British fleet off Sullivan's Island, the Province enjoyed

<sup>1</sup> McSherry, *History of Maryland*, 188, 190, 223-229, 241, 252, 305; Bond, *State Government in Maryland*, 94-98; Steiner, *Western Maryland in the Revolution*, 45-47.

<sup>2</sup> Tyler, *Letters and Times of the Tylers*, I, 80; George, "Virginia Loyalists," in *Richmond College Historical Papers*, I, 198; Jones, J., *Letters*, 67, 75, 82; Nevins, *American States during and after the Revolution*, 330-333; Marks, *England and America*, II, 998, 1004-1012.

<sup>3</sup> Cf. Gordon, W., *Rise, Progress, and Establishment of the Independence of the United States*, II, 208; IV, 27, 31; Sikes, *Transition of North Carolina*, 55-58; *North Carolina State Records*, XVI, p. viii.

comparative quiet for nearly three years.<sup>4</sup> The southern frontier of Georgia was continually subject to depredations of bands from Florida. The capture of Savannah by the British in the last days of 1778 was followed by the virtual over-running of the State except for the western fringes of settlement. A continuous bushwhacking warfare was maintained by small bands of Whigs and Tories, who carried off slaves and other property and destroyed crops.<sup>5</sup> The capture of Savannah marked the beginning of serious troubles for South Carolina. Prévost's raid from Georgia as far as the outskirts of Charleston in the Summer of 1779 was marked by the carrying off of several thousand Negroes and the destruction of a great quantity of property. In the Spring of 1780 the British captured Charleston, and celebrated the event by carrying off thousands of Negroes and other property to such value that the share of a major general was estimated at £4,000 sterling. Until the evacuation of Charleston near the close of 1782 the State was a battle ground for regular forces and irregular bands, who were not scrupulous in regard to property or life. Many wealthy families were ruined, and agriculture reduced to a sad condition.<sup>6</sup>

The South lost heavily in Negro slaves. It was estimated that Virginia lost 30,000, and South Carolina not less than 25,000, carried off or destroyed by pestilence.<sup>7</sup> The Revolutionary legislature of Georgia tried to mitigate prospective losses from the British evacuation of Savannah by appointing an emissary to negotiate with persons in the British lines for the purchase of slaves about to be carried away.<sup>8</sup> So great had been the losses in South Carolina and Georgia that by 1783 the supply was extremely scarce in proportion to demand, and ordinary Negroes sold for 70 to 100 guineas, and were hard to procure at any price.<sup>9</sup> Naturally, the South was greatly disappointed by the failure of the British to fulfill the articles of the treaty of peace providing for return of confiscated slaves, and by failure of Jay's Treaty to obtain compensation for slaves carried off.<sup>10</sup>

#### DISORGANIZATION OF PROPERTY RELATIONSHIPS AND FINANCIAL CONFUSION

At the close of the war there was a great deal of confusion in property relationships. In Georgia so many plantations had been abandoned that the authorities found it necessary to appoint overseers to prevent systematic pillage.<sup>11</sup> In all of the States legislative action had been taken against the property of specified classes of Loyalists, generally sequestration followed in time by confiscation and

<sup>4</sup> Ramsay, *Revolution of South Carolina*, I, Chaps. III, V-VI.

<sup>5</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 40, 50, 106; *Colonial Records of Georgia*, XII, 438, 452, 504; XV, 658; cf. Nevins, *American States during and after the Revolution*, 412-415.

<sup>6</sup> Ramsay, *Revolution of South Carolina*, II, 66; McCrady, *South Carolina in the Revolution, 1775-1780*, pp. 392-394, 545; Drayton, *View of South Carolina*, 165; Gordon, W., *Rise, Progress, and Establishment of the Independence of the United States*, III, 456; IV, 99; Marks, *England and America*, II, 867-874; Nevins, *American States during and after the Revolution*, 374.

<sup>7</sup> George, "Virginia Loyalists," in *Richmond College Historical Papers*, I, 188 n.; *South Carolina Gazette and General Advertiser* (Charleston), Nov. 29-Dec. 2, 1783; Gordon, W., *Rise, Progress, and Establishment of the Independence of the United States*, IV, 403; Drayton, *View of South Carolina*, 165.

<sup>8</sup> Georgia, *Revolutionary Records* (Assem. Journal), III, 119.

<sup>9</sup> Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 175; cf. Ford, T., *Diary* (South Carolina Historical and Genealogical Magazine, XIII), 193.

<sup>10</sup> Tyler, *Letters and Times of the Tylers*, I, 102, 112.

<sup>11</sup> Georgia Historical Society, *Collections*, III (1873), p. 290.

repudiation of indebtedness due them. As a large proportion of the Tories were formerly resident merchants, a good deal of colonial indebtedness was thereby wiped out. Some of the States attempted to secure currency issues by Tory property, but the principal gainers were speculators who shrewdly bought the property in rapidly depreciating money.<sup>12</sup> In the two southernmost States the confusion was increased by the fact that property was confiscated, restored, and confiscated again as the tide of war shifted back and forth. The papers carried advertisements for the owners of property who could not be found.<sup>13</sup>

The South also lost heavily through the flight or exclusion of large numbers of Tories who were men of property and consequence. This loss was particularly severe in South Carolina and Georgia, whose Loyalists took refuge in the West Indies or Florida. In 1784 it was declared, though probably an exaggeration, that in Georgia not a tenth of the white population resident there before the war still remained, and an even smaller proportion of Negroes. Active Tories were not numerous in Virginia and Maryland, but they consisted largely of Scotch merchants, whose emigration greatly reduced the available enterprise and commercial experience of the States.<sup>14</sup>

The incredible dislocation in financial relationships due to currency inflation and wartime taxation was not immediately eliminated by the close of the war. The old issues had been largely discredited, but in spite of considerable accessions of specie due to the expenditures of the French and British armies, there was everywhere a great scarcity of hard money, a scarcity intensified by hoarding. Even such specie as circulated was of a nondescript character, with varying unit values; and there was a scarcity of coin suitable for small change.<sup>15</sup>

These conditions were accentuated by the immediate expansion of trade after the war. The great scarcity of manufactured products and slaves and their enormously high prices, offset by the corresponding scarcities and high prices of American staples in Europe, created an inducement to trade so irresistible that American ships began to appear at British ports and British ships at American ports even before the treaty of peace was signed. Since colonial paper currency had no validity in foreign countries or even in neighboring States, much of the specie was quickly drained away. Large quantities of goods were obtained on

<sup>12</sup> The reader is referred for details to the following sources among others: Eckenrode, *Revolution in Virginia*, 187-190; George, "Virginia Loyalists," in *Richmond College Historical Papers*, I, 215, 218; Tyler, *Letters and Times of the Tylers*, I, 93; Bond, *State Government in Maryland*, 94-101; McSherry, *History of Maryland*, 260-262; McRee, *James Iredell*, I, 411, 448; Boyd, *The Federal Period (History of North Carolina*, II), 9; Nevins, *American States during and after the Revolution*, 365, 385, 390, 397, 401-404, 416, 507.

<sup>13</sup> *Colonial Records of Georgia*, XV, 581, 584, 587-589, 594, 615, 623, 662; *South Carolina Gazette and General Advertiser* (Charleston), Mar. 25, May 13, 24, 1783; *Particular Cases of the Georgia Loyalists*, 4, 10-15.

<sup>14</sup> *Gazette of the State of South Carolina* (Charleston), Jan. 15, 1784; Eckenrode, *Revolution in Virginia*, 37, 72, 100, 119, 232; Macpherson, *Annals of Commerce*, IV, 36. Concerning the number, classes, and geographic location of the Loyalists in the South, see in addition to the above citations: Steiner, *Western Maryland in the Revolution*, 7; George, "Virginia Loyalists," in *Richmond College Historical Papers*, I, 174, 178-184, 189, 218; Sikes, *Transition of North Carolina*, 55-58; Wagstaff, *State Rights and Political Parties in North Carolina*, 13; McCrady, *South Carolina in the Revolution, 1775-1780*, p. 33; *ibid.*, 1780-1783, p. 559; Drayton, *Memoirs of the American Revolution*, I, 362-365; Nevins, *American States during and after the Revolution*, 373-376; McKinnon, *Tour through the British West Indies*, 182.

<sup>15</sup> Macpherson, *Annals of Commerce*, III, 589-591; Sumner, *Financier and Finances of the American Revolution*, II, 42; La Rochefoucauld, *Travels*, II, 404-406; *State Gazette of South Carolina* (Charleston), June 8, 1786.

credit, and for about two years there was an orgy of speculation. In Charleston and Savannah British merchants, allowed to remain to wind up their affairs, grasped the opportunity to dispose of slaves to eager planters at prices 50 to 75 per cent above cost of importation. The prices of American staples advanced rapidly, while the prices of foreign goods and of slaves gradually declined as the scarcity was relieved.<sup>16</sup>

On account of the draining away of specie and the worthlessness of paper many parts of the South, in the latter part of the war and the years immediately following, were reduced to barter or the employment of commodities as media of exchange. North Carolina, finding its currency worthless abroad, undertook to purchase tobacco in order to liquidate its external indebtedness. Bad management and fraud made it a sad experience. Virginia was compelled to return for several years to the war policy of allowing the collection of taxes in tobacco and other commodities, and did not succeed in extricating herself until 1788.<sup>17</sup>

These conditions were fertile soil for cheap money agitators. North Carolina, where cheap money ideals were least restrained by an influential propertied class, led the way by its issues of 1783 and 1785. Monetary stringency was emphasized by the depression that followed quickly on the heels of the two years of abnormal commercial activity and speculation beginning in 1783. Merchants began to press for collection of debts. In South Carolina bad crop seasons in 1785 and 1786 increased the embarrassment of farmers. In some localities attempts were made by force to resist collection of debts. Inability to export State currency in debt payments and the absence of specie reduced debtors to desperation. South Carolina and Georgia attempted to relieve the condition by currency issues. These were conservative in amount, and attempts were made to safeguard them by ample security. While the South Carolina issue depreciated somewhat and the Georgia issue still more, both issues helped to relieve the stringency. Maryland and Virginia succeeded in resisting the agitation for cheap money.<sup>18</sup> Extreme currency depreciation in the last years of the war had forced the States to adopt depreciation scales for debt payments, but the panic of 1785-86 led to the passage of a succession of stay laws. The notorious Pine Barren Act of South Carolina allowed debtors to tender lands at two thirds of their value. There was a general tendency toward laxity in meeting obligations, and the dockets of the courts were congested with litigation.<sup>19</sup>

<sup>16</sup> Williamson, *Letters of Sylvius* (Duke University, Historical Papers, XI), 16-18; McRee, *James Iredell*, I, 448; Clay, *Letters* (Ga. Hist. Soc., Collections, VIII), 167; Georgia, *Revolutionary Records*, II, 373; Drayton, *View of South Carolina*, 165-167; Jones, J., *Letters*, 109; *South Carolina Gazette and General Advertiser* (Charleston), May 6, 1783; Ford, T., *Diary* (South Carolina Historical and Genealogical Magazine, XIII), 193; *Maryland Gazette or the Baltimore Advertiser*, Apr. 6, 1787; *North Carolina State Records*, XVI, 799, 883; cf. Phillips, U. B., *American Negro Slavery*, 366; Nevins, *American States during and after the Revolution*, 487.

<sup>17</sup> *Ibid.*, 6, 497; *North Carolina State Records*, XVIII, 232, 473; XX, 406, 452-454, 638, 644-646; XXI, 96-98, 206, 467, 516, 533, 555, 723; XXIV, 724; *Virginia Statutes* (Hening), XI, 289, 299; XII, 258, 455, 707; Reams, "Taxation in Virginia during the Revolution," in *Richmond College Historical Papers*, II, 57, 62.

<sup>18</sup> Boyd, *The Federal Period* (*History of North Carolina*, II), 4-6; Ford, T., *Diary* (South Carolina Historical and Genealogical Magazine, XIII), 193; Garland, *John Randolph of Roanoke*, II, 105; cf. Nevins, *American States during and after the Revolution*, 515, 524-526, 528-531, 558.

<sup>19</sup> *Ibid.*, 386, 404, 525; Grigsby, *Virginia Federal Convention*, II, 67; Ramsay, *History of South Carolina*, II, 429; Ford, T., *Diary* (South Carolina Historical and Genealogical Magazine, XIII), 196; Wallace, D. D., *Henry Laurens*, 428-430.

The panic began to pass away in 1786, and for a number of years there was a gradual improvement and a steady repair of the devastation and loss of the war period.<sup>20</sup> This improvement contributed toward adoption of the Constitution; and the financial stabilization that followed promoted increasing economic confidence and activity.

#### REESTABLISHMENT OF BRITISH COMMERCIAL PREDOMINANCE

An important factor in improvement of conditions was the surprisingly quick reestablishment of British commercial predominance. No doubt many patriotic leaders in the Colonies expected and desired the war to dissolve the extreme commercial dependence of the colonial period. Acts were passed in several States to prevent the return of Tory merchants and the introduction of British goods. In 1783, when a measure came up in the Virginia House of Delegates to remove restraints from British commerce, it was opposed by Tyler on the ground that it would enable the British to restore the former commercial monopoly.<sup>21</sup> The British themselves had reason to dread the handicap of hostility and the withdrawal of special advantages conferred by the Navigation Acts. At the close of the war legislatures were busy excluding Loyalists or forbidding their return. By reason of the failure of Great Britain to comply with provisions of the treaty of peace for the return of slaves and the evacuation of frontier posts, various States steadily refused for a number of years to provide for legal collection of the millions of dollars of pre-war indebtedness due British merchants.<sup>22</sup>

The British were therefore as much surprised as anyone by the spontaneous renewal of commercial relations. In September, 1783, the North Carolina representatives in Congress wrote Governor Martin that as long as Great Britain feared the loss of our trade by diversion to France and Holland she was friendly to proposals of reciprocity, but when American ships began to crowd into British harbors, though no treaty of peace had been accomplished, "in a manner that was astonishing to all Europe" and our own ports were thrown open to British cargoes, the British became less inclined to grant favorable commercial privileges.<sup>23</sup>

The various countries of Continental Europe, especially France, had made earnest attempts during the war to establish trade relations with the States, mainly by way of the West Indies. British warships and privateers, of course, proved a serious obstacle, but the main difficulty was the insistence of the Americans on the kinds of manufactured goods to which they had been long accustomed. Continental manufacturers did not succeed in adapting themselves to these requirements, and consequently Continental merchants found it necessary to establish depots of British goods in the West Indies, which they might exchange for American staples.<sup>24</sup> To this preference for British goods were added the

<sup>20</sup> Cf. Nevins, *American States during and after the Revolution*, 541-543; Grigsby, *Virginia Federal Convention*, I, 82 n.; also pp. 9-19; La Rochefoucauld, *Travels*, II, 408, 500.

<sup>21</sup> Tyler, *Letters and Times of the Tylers*, I, 97; cf. Schoepf, *Travels in the Confederation*, II, 60.

<sup>22</sup> Jones, J., *Letters*, 119, 137, 139; Tyler, *Letters and Times of the Tylers*, I, 110-112; Beveridge, *John Marshall*, I, 223 & n.; McLaughlin, "Western Posts and the British Debts," in *Amer. Hist. Assn., Annual Report*, 1894, p. 420; Bemis, *Jay's Treaty*, 315-317, 326; Nevins, *American States during and after the Revolution*, 337, 386.

<sup>23</sup> *North Carolina State Records*, XVI, 883.

<sup>24</sup> Macpherson, *Annals of Commerce*, III, 589-591.

superior facilities and experience of British merchants in granting long credits. French merchants, not having the advantage of the intimate knowledge of the credit standing of the colonists, were loath to engage in so risky an enterprise, particularly after the object lessons in repudiation, debt-scaling, and stay laws from which their British competitors had suffered. British merchants, however, were ready to venture again in the extension of the long credits to which the planter classes were accustomed, although careful to grant it only to native merchants of high standing.<sup>25</sup>

No commercial treaty was operative between Great Britain and the United States until Jay's Treaty went into effect in 1796. In the meantime Great Britain shrewdly encouraged the natural drift by providing in orders in council of December, 1783, that American tobacco destined for reëxport might be admitted and warehoused duty free. This encouraged the reëstablishment of the British indirect trade in that article; for the advantages of carrying tobacco first to Great Britain because of the width of the market and its special advantages for redistribution probably outweighed the small charges involved. In June, 1783, an order in council provided that tobacco, indigo, pitch, tar, turpentine, masts, yards, and bowsprits might be imported from the United States in British or American vessels on payment of the same duties as from British dominions. Tobacco for reëxportation was subjected merely to the small charge of the Old Subsidy.<sup>26</sup>

France also adopted at first a liberal policy. In the treaty of 1778 the American States were granted most-favored-nation privileges, American ships were allowed to enter French harbors with goods not already prohibited, and certain cities were made free ports for American tobacco.<sup>27</sup> This liberality, however, did not offset the advantages of the English merchants. In 1787 George Mason attempted to establish his son as a merchant at Bordeaux and to open up trade in tobacco with that French port. His letters probably reflect the experiences of other similar attempts. He urged his friends and acquaintances to consign their tobacco, but he was finally obliged to confess that they were loath to do so. The failure of the French firm to supply adequate credit and to furnish the kinds of manufactured goods desired discouraged the consignors. The commercial confusion resulting from the outbreak of the French Revolution and the act passed by the National Assembly placing a discriminating duty on tobacco carried in American ships were also serious discouragements.<sup>28</sup>

As a result of these conditions, although French, Dutch, and other foreign merchants flocked to our shores at the close of the war and sought to capture the

<sup>25</sup> "Report of the Committee of Privy Council on the Commerce and Navigation between His Majesty's Dominions and the Territories belonging to the United States, Jan. 28, 1791," in Society of Ship-Owners of Great Britain, *Collection of Interesting and Important Reports and Papers on Navigation and Trade*, 92; Ramsay, *History of South Carolina*, II, 238; *Mémoire pour des Négocians de l'Orient Intéressés au Commerce des États-Unis*, 7; Tyler, *Letters and Times of the Tylers*, I, 97; cf. especially, Bemis, *Jay's Treaty*, 28.

<sup>26</sup> Macpherson, *Annals of Commerce*, IV, 28; Bemis, *Jay's Treaty*, 22; *North Carolina State Records*, XVI, 812. See above, p. 245.

<sup>27</sup> Bemis, *Jay's Treaty*, 21 n.; letters of Robert Morris, in United States, *Papers of the Continental Congress*, No. 137, Vol. III, Pt. II, ff. 535-537 (Manuscripts, Library of Congress).

<sup>28</sup> Rowland, *George Mason*, II, 212-214, 299-300, 306, 316, 326; Jefferson, *Writings* (Ford), V, 362.

trade, they were soon discouraged; and within a few years the British mercantile interest was firmly entrenched. Their domination of Southern commerce and economic life was not finally broken until after the period now under consideration, although it is probable that a larger proportion of their sales than formerly were made through American importing firms to whom the British merchants granted long credits.<sup>29</sup>

How largely the British surpassed other European carriers in the trade of the Southern States by 1790 is shown by Table 17.<sup>30</sup>

American ships, however, enjoyed advantages over British ships. This was the new rival with whom Great Britain was forced to deal, and this rivalry largely colored British commercial and diplomatic policy with respect to America for the next two decades. The alarming growth of American tonnage and the quick return of America to British markets played into the hands of the reactionary school of British commercial thought, led by Lord Sheffield, who desired to restore as far as possible the Navigation Acts.<sup>31</sup> One of the first fruits was the order in council of July 2, 1783, with reference to trade with the British West

TABLE 17.—*Tonnage of vessels in the overseas trade of the Southern States, for the year October 1, 1789 to September 30, 1790*<sup>1</sup>

State	American	British (including Ireland)	Other nations	Total
Virginia.....	33,560	56,273	4,092	93,925
Maryland.....	39,272	23,339	9,485	72,096
North Carolina.....	24,219	4,941	244	29,404
South Carolina.....	16,871	18,725	4,256	39,852
Georgia.....	9,544	15,041	1,570	26,155
Total.....	123,466	118,319	19,647	261,432

<sup>1</sup> For source, see footnote 30.

Indies. Renewed from time to time and finally embodied in an act of Parliament in 1788, it continued to be established British trade policy for several decades. Certain specified American products, including naval stores and lumber, livestock and livestock products, grain and its products, peas, beans, and potatoes, could be carried to the British West Indies only in British vessels, while the principal products of the Islands could be brought to the United States only in British vessels.<sup>32</sup> Although the policy principally affected Northern shipowners, there were not a few vessels of Southern ownership engaged in the trade, and the policy was

<sup>29</sup> See below, p. 766. See also *North Carolina State Records*, XVI, 866, 920-923; Bemis, *Jay's Treaty*, 34; Buck, *Anglo-American Trade, 1800-1850*, Chap. V; "Report of the Committee of Privy Council on the Commerce and Navigation between His Majesty's Dominions and the Territories belonging to the United States, Jan. 28, 1791," in Society of Ship-Owners of Great Britain, *Collection of Interesting and Important Reports and Papers on Navigation and Trade*, 92.

<sup>30</sup> *Ibid.*, 95. Cf. somewhat similar table for the same year in Tench Coxe's *View of the United States*, 423.

<sup>31</sup> Cf. Society of Ship-Owners of Great Britain, *Collection of Interesting and Important Reports and Papers on Navigation and Trade, etc.* This volume largely embodies the arguments of this school of thought and the supporting statistical data. Tench Coxe undertook a systematic refutation of their arguments. *View of the United States*, 111-285.

<sup>32</sup> *North Carolina State Records*, XVI, 837; Macpherson, *Annals of Commerce*, IV, 168.

strongly resented in the South, a resentment manifested in the passage of discriminatory import and tonnage duties,<sup>33</sup> and in the growth of sentiment for Federal control over commerce, finally provided for in the Constitution.

It is doubtful if British policy seriously affected the flow of American lumber and provisions to the Islands after the first scarcity and high prices that followed its imposition. The Islands continued to import large quantities of rice, averaging about 20,000 barrels a year.<sup>34</sup> There were periods, such as 1789 and 1790, when provisions were exceedingly scarce in the West Indies,<sup>35</sup> but there were also periods, such as 1791, 1792, and 1794, when the markets of both the British and the French West Indies were overstocked with American flour and other provisions. In the last mentioned year this abundance may have been due to the fact that war with France had caused available British shipping to become so scarce that in 1793 and for some time thereafter West Indian authorities were compelled to relax the administration of British trade policy. While Jay secured a partial relaxation of restrictions on American trade to the West Indies, the rejection of those provisions in the treaty by the American Senate left the problem unsettled for several decades.<sup>36</sup>

The liberal policy of France with respect to American trade with the French West Indies partially offset for a time the disadvantages of the British policy. In 1784 the French West Indies were opened to foreign ships bringing in certain specified articles, which included rice and other grain and provisions, lumber, and naval stores. This was of great consequence to the South,<sup>37</sup> although the advantage was probably greatly reduced after the outbreak of war between France and Great Britain.

#### TOBACCO INDUSTRY, 1783-1795

✓ Although the tobacco trade had reached a very low ebb by the close of the Revolutionary War, termination of hostilities brought a quick revival. This was facilitated by the British orders in council of 1783 and 1785 restoring in the main the earlier drawback policy.<sup>38</sup> Tobacco for consumption in Great Britain was subjected to heavy customs, as in the pre-war period, and also to excise duties, amounting in all to 15 pence per pound sterling in 1789; but these duties encouraged a very extensive practice of smuggling.<sup>39</sup> In spite of the en-

<sup>33</sup> *North Carolina State Records*, XVI, 730; Bemis, *Jay's Treaty*, 24; Fisher, W. C., "American Trade Regulations before 1789," in Amer. Hist. Assn., *Papers*, III, No. 2, pp. 241-243; Bennis, *American Struggle for the British West India Carrying Trade*, 7-20; "Report of the Privy Council, May 31, 1784, made on the Representation of the West India Planters, etc.," in Society of Ship-Owners of Great Britain, *Collection of Interesting and Important Reports and Papers on Navigation and Trade*, 38.

<sup>34</sup> *Ibid.*, 4-10, 19-26; *Gazette of the State of South Carolina* (Charleston), Jan. 29, 1784; Edwards, *Thoughts on the Trade of the West India Islands*, 7-9, 12, 29.

<sup>35</sup> *State Gazette of North Carolina* (Edenton), May 27, 1789; Feb. 20, 1790.

<sup>36</sup> *Baltimore Daily Repository*, Nov. 11, 1791; Jan. 25, 1792; *Virginia Independent Chronicle* (Richmond), Jan. 20, 1790; Bennis, *American Struggle for the British West India Carrying Trade*, 16-20; *Baltimore Daily Intelligencer*, Feb. 21, 1794; Bemis, *Jay's Treaty*, Chap. XIII, and App., p. 331.

<sup>37</sup> *Ibid.*, 21 n.; *Gazette of the State of South Carolina* (Charleston), Jan. 8, 1784; *Virginia Herald and Fredericksburg Advertiser*, Jan. 14, 1790.

<sup>38</sup> Macpherson, *Annals of Commerce*, IV, 75. See also above, p. 600.

<sup>39</sup> Macpherson, *Annals of Commerce*, IV, 189; Brissot de Warville, *New Travels in the United States*, 440.



couragements mentioned, however, British tobacco trade had not fully recovered as late as 1791, when it was reported that total imports for an average of six years preceding had been less than the pre-war average by 44,774,458 pounds.<sup>40</sup>

American independence revived the ideas, first developed in the colonial period, of direct purchase in the United States by the French tobacco monopoly. In 1783 the French Farmers General proposed to enter a contract with Robert Morris for the exclusive shipment of American tobacco to France. Morris had been active for some time in buying the public tobacco of Virginia received for taxes and selling to French agents.<sup>41</sup> After some delay Morris' firm signed a contract with the Farmers General under which the former undertook to deliver 20,000 hogsheads a year in the three years 1785, 1786, and 1787. The shipments were to be assorted into certain classes, delivered in specified quantities at certain designated French ports, and made at the risk of the American concern. The Farmers General agreed to pay a round price of 36 livres tournois per hundred-weight, subject to certain deductions and allowances, and also agreed to purchase American tobacco from no other source.<sup>42</sup>

The contract raised a storm of protest in America. Even before the contract was signed, Jefferson, American representative at Paris, had hoped to secure abolition of the French monopoly, though he declared it was "so interwoven with the very foundations of *their* system of *finance* that it is of *doubtful event*." The Morris contract, which Jefferson declared had "thrown the commerce of that article in agonies," aroused his indignation still more and excited him to renewed exertions. Morris, according to Jefferson, had succeeded in reducing the price in America from 40 shillings per hundredweight to 22 shillings 6 pence, involving a loss to Virginia and Maryland of £400,000 in one year. The argument that firms purchasing for cash discouraged the export trade from France to America was employed with full effect by Jefferson,<sup>43</sup> and this argument was strongly seconded by the merchants of L'Orient and other French ports, whose business in supplying French goods to America was beginning to languish.<sup>44</sup> Washington was more temperate in his judgment. He wrote in August, 1788:<sup>45</sup>

"Respecting the utility or hurtfulness of the tobacco contract between Mr. Morris and the Farmers-General, I have heard so many specious arguments on one side and the other, that I find myself embarrassed in making a fair judgment."

Jefferson's arguments made some headway with Vergennes, who appointed a special committee to consider the problem. The committee recommended that

<sup>40</sup> "Report of the Committee of the Privy Council on the Commerce and Navigation between His Majesty's Dominions and the Territories belonging to the United States, Jan. 28, 1791," in Society of Ship-Owners of Great Britain, *Collection of Interesting and Important Reports and Papers on Navigation and Trade*, 68.

<sup>41</sup> Morris, R., *Diary*, III, 29 (Manuscripts, Library of Congress).

<sup>42</sup> The contract in full is reprinted in *North Carolina State Records*, XVIII, 630-632; also in United States, Dept. State, *Diplomatic Correspondence, 1783-1789*, III, 64-67. A detailed account of the history of the transaction is in Sumner, *Financier and Finances of the American Revolution*, II, 168 *et seq.*

<sup>43</sup> Letter to Monroe, Dec. 10, 1784, and to John Adams, July 9, 1786, in Jefferson, *Writings* (Ford), IV, 20, 252; also letter to Messrs. French and Nephew, July 13, 1785, and to Count de Montmorin, July 23, 1787, in Jefferson, *Writings* (Washington), I, 362; II, 186-188.

<sup>44</sup> Cf. *Mémoire pour des Négocians de l'Orient Intéressés au Commerce des États-Unis*, *passim*.

<sup>45</sup> *Writings* (Ford), XI, 307.

the contract be allowed to continue until expiration, but that the independent merchants be permitted during its continuance to import in French or American vessels from 12,000 to 15,000 hogsheads a year, which the Farmers General were to be compelled to buy at from 34 to 38 livres per hundred according to quality. Jefferson believed, however, that the Farmers General would set up many obstacles to the purchase of this free tobacco.<sup>46</sup>

Apparently the Morris monopoly did not prosper. One large shipment was lost. The Farmers General brought suit because of the poor quality shipped them. In spite of Jefferson's belief that the monopoly depressed the American price, the increase of prices in 1786 caused heavy losses to the Morris concern. On the expiration of the contract Gouverneur Morris, then representing the interests of Robert Morris in France, endeavored to negotiate other large contracts for the shipment of tobacco, flour, and other American products, but the storm of the Revolution checked these various schemes. In 1792 the monopoly of the Farmers General was abolished, and until 1810 a régime of open trade prevailed, but subject to heavy import duties that discriminated against tobacco brought in American ships.<sup>47</sup>

In spite of the growing influence of *laissez faire* the tobacco commonwealths revived their colonial inspection acts, retaining the principles of the colonial legislation with minor modifications, such as the abolition in Virginia of State insurance of tobacco in public warehouses.<sup>48</sup> In 1790, however, North Carolina repealed her inspection acts, "found by experience to be injurious." The repeal was probably due largely to the influence of small back-country farmers who employed hit-or-miss methods of production and resented the interference and expense of inspection. Opponents of the repeal declared that the evils complained of had been due largely to frequent legislative changes which reflected the "want of information in our legislature on this subject."<sup>49</sup>

Immediately after the close of hostilities the price of tobacco seems to have risen under the influence of speculation.<sup>50</sup> About the middle of 1783 it had fallen again, which was attributed to scarcity of specie and the acts excluding Loyalist merchants. There was probably some improvement in 1784. In the following year, however, there was complaint of the deplorable condition of the trade, attributed by Jefferson to the Morris monopoly.<sup>51</sup> There was much jockeying in Virginia over the question of receiving tobacco for taxes. It was alleged that the merchants opposed the policy in order to hold prices down. The farmers and planters favored it, and succeeded in getting a price allowance higher

<sup>46</sup> Letter to Count de Montmorin, July 23, 1787, in Jefferson, *Writings* (Washington), II, 186-188; letter to Jay, May 27, 1786, in Jefferson, *Writings* (Ford), IV, 232-236.

<sup>47</sup> Sumner, *Financier and Finances of the American Revolution*, II, 168-175; Morris, G., *Diary and Letters*, I, 89, 380. See below, p. 763.

<sup>48</sup> *Virginia Statutes* (Hening), IX, 96, 155, 333, 483-521; X, 355-357; XI, 527; XIII, 479-517; *Maryland Archives* (State Coun.), XLIII, 304; *North Carolina State Records*, XXIV, 104-109, 278, 586, 886-888; XXV, 16.

<sup>49</sup> *Ibid.*, XXI, 941; XXV, 83.

<sup>50</sup> Cf. sterling quotations in Charleston, S. C., showing prices from 3 to 12 pence in 1781, and 8 to 14 pence in 1782. *Royal Gazette*, June 13 to Sept. 22, 1781; Jan. 26 to July 27, 1782.

<sup>51</sup> Tyler, *Letters and Times of the Tylers*, I, 100; *Bland Papers* (Campbell), II, 110; Rowland, *George Mason*, II, 46; *North Carolina State Records*, XVI, 998; letter to Messrs. French and Nephew, July 13, 1785, in Jefferson, *Writings* (Washington), I, 362; Madison, *Letters and Other Writings*, I, 151, 159, 176, 263.

than the market justified. Prices were still low in the first half of 1786. About the middle of 1787 a great drouth injured the prospects of tobacco, and the price rose considerably. It continued so high in the first half of 1788 that it was found expedient in North Carolina to discontinue State purchases. In the late Summer of that year tobacco in Virginia was seriously damaged by a violent rainstorm. By December it was apparent that the crop was of average size but the quality poor, which apparently resulted in lower prices.<sup>52</sup> In October, 1789, tobacco was greatly damaged by frost, and by December it was reported that only half a crop would be made in Virginia. In the following year prices were considerably higher. In July, 1791, however, tobacco was selling for only 13 to 14 shillings Virginia currency per hundred on the Potomac as compared with 18 to 20 in the preceding year. A period of low prices continued from at least as early as 1793 until 1796.<sup>53</sup> Beginning with 1797, however, there occurred a higher level, probably continuing until after the close of the eighteenth century, which was attributed to the extensive shift from tobacco production to wheat production. Higher prices led to a reverse movement, toward an expansion of tobacco production, even in the wheat growing section of Loudoun County, Virginia.<sup>54</sup>

Within three years after the close of the Revolutionary War tobacco exports from Virginia had returned approximately to the pre-war average. Exports from October, 1783 to October, 1789, in hogsheads, were as follows:<sup>55</sup>

1783-84.....	49,497	1786-87.....	60,041
1784-85.....	55,624	1787-88.....	58,544
1785-86.....	60,380	1788-89.....	58,673

In the year ending September 30, 1792, Maryland exported 28,292 hogsheads of leaf tobacco and a small quantity of manufactured tobacco, as compared with a pre-war average of about 30,000 hogsheads.<sup>56</sup>

The industry was expanding in new regions. After the Revolutionary War upper South Carolina and Georgia developed the production of tobacco as a

<sup>52</sup> Letter of Edmund Pendleton, Feb. 28, 1785, in Lee, R. H., *Memoirs*, II, 196; Madison, *Writings* (Hunt), II, 286, 293; Rowland, *George Mason*, II, 206, 300, 307; Jones, J., *Letters*, 148, 153, 157; Virginia, *Calendar of State Papers*, IV, 121; McRee, *James Iredell*, II, 163; *North Carolina State Records*, XXI, 475, 489; *Wilmington Centinel and General Advertiser*, June 18, 1788; *State Gazette of South Carolina* (Charleston), Feb. 26, 1789.

<sup>53</sup> *Fayetteville Gazette* (North Carolina), Oct. 12, 1789; *Augusta Chronicle and Gazette of the State* (Georgia), Dec. 19, 1789; Virginia, *Calendar of State Papers*, V, 97; Rowland, *George Mason*, II, 326, 338; *Virginia Herald and Fredericksburg Advertiser*, Apr. 21, May 5, July 28, 1791; Coxe, T., *View of the United States*, 340; *North Carolina Journal* (Halifax), June 1, 1795; *North Carolina Gazette* (Newbern), June 6, 1795; *North Carolina Minerva and Fayetteville Advertiser*, Mar. 31 to Dec. 31, 1796, *passim*; *Wilmington Chronicle and North Carolina Weekly Advertiser*, July 3 to Oct. 22, 1795, *passim*; Feb. 4 to Aug. 4, 1796, *passim*.

<sup>54</sup> *North Carolina Minerva and Fayetteville Advertiser*, Jan. 14, Nov. 14, 1797; Feb. 10, 1798; *Hall's Wilmington Gazette*, Apr. 20, 1797; *City Gazette and Daily Advertiser* (Charleston), Mar. 23 to Apr. 14, 1798, *passim*; *Columbian Mirror and Alexandria Gazette* (Virginia), Aug. 25, 1798; *Georgia Gazette* (Savannah), Feb. 14, 21, 1799; *Epitome of the Times* (Norfolk), July 25, 1799; *Wilmington Gazette*, Dec. 12, 1799; La Rochefoucauld, *Travels*, II, 108; letter from George Carter, Oct. 10, 1798, in Carter, R., *Papers* (Letter Books, IV: Manuscripts, Library of Congress); *Federal Gazette and Baltimore Daily Advertiser*, May 28, 1799.

<sup>55</sup> Returns from Auditor's and Solicitor's office, reprinted in *North Carolina Chronicle or Fayetteville Gazette*, Jan. 24, 1791; Coxe, T., *View of the United States*, 85.

<sup>56</sup> *Ibid.*, Table XII, p. 418; also p. 85.

principal export commodity, by means of a regular system of warehouses and inspection. The exports of tobacco from Charleston increased from 643 hogsheads in 1783 to 9,646 in 1799. In the year ending September, 1792, Georgia exported 5,471 hogsheads, and the industry was said to be increasing rapidly. With the beginning of the nineteenth century the industry in these States rapidly declined, being displaced by cotton; but as late as 1809 South Carolina was amending its inspection act for tobacco.<sup>57</sup> Tobacco production also developed in the North Carolina back country, around Hillsboro and Fayetteville, and 1,406 hogsheads were shipped in 1788 from Wilmington.<sup>58</sup> This period also witnessed the beginnings of the tobacco industry in Kentucky and Tennessee. In consequence of this expansion the exports of American tobacco were 36 per cent greater in 1792 than they had been in 1770.<sup>59</sup>

#### THE SHIFT FROM TOBACCO TO WHEAT IN THE OLD TOBACCO REGIONS

While Virginia and Maryland had barely held their own in volume of tobacco exports following the Revolution, even this was accomplished only by the development of tobacco production in middle Virginia and the Valley, particularly the southern part—a shift indicated by lists of warehouses in inspection acts of the period. This was a continuation of the tendency to turn from tobacco production, on account of soil exhaustion, which had been taking place in the Tidewater for several decades. The production of tobacco by cowpenning land had proven expensive as compared with its production in the fresh soils of middle Virginia.<sup>60</sup> Moreover, many Tidewater planters, disgusted with the consignment system, were released by the war from the debt bondage to British merchants that had made it impossible to change.<sup>61</sup> In 1801 John Bordley wrote concerning Maryland and Virginia, “As the culture of wheat progressed southward, the country people became more improved in their sentiments, manner of living, and independency of store keepers, dealers in merchandize.”<sup>62</sup> It is probable, however, that for many Tidewater planters the shift was a gradual one. This was the case, for instance, with George Washington, who in 1763 contracted with an Alexandria firm to sell them all the wheat he produced during the next seven years. The record of deliveries from 1764 to 1769 shows a steady increase. Washington was also gradually reducing tobacco sales.<sup>63</sup> Some farmers adopted wheat cultivation without entirely abandoning tobacco. Wheat was raised on

<sup>57</sup> *South Carolina Statutes* (Cooper), IV, 604–607, 681–687; V, 113–121, 617; *Georgia Laws* (Prince, 1822), pp. 473–483; Ramsay, *History of South Carolina*, II, 219; Warden, *Account of the United States*, II, 445; Coxe, T., *View of the United States*, Table XII, p. 418; cf. Washington, *Diaries* (Fitzpatrick), IV, 174, 178.

<sup>58</sup> *North Carolina State Records*, XXIV, 695; *State Gazette of North Carolina* (Edenton), May 14, 1789.

<sup>59</sup> Coxe, T., *View of the United States*, 225.

<sup>60</sup> Jefferson, *Notes on Virginia* (Ford, 1894), p. 205; Parkinson, *Tour*, II, 412; Winterbotham, *View of the American United States*, III, 112.

<sup>61</sup> Washington, *Writings* (Ford), II, 256 n.; Jefferson, *Writings* (Ford), IV, 288; *State Gazette of North Carolina* (Edenton), Oct. 22, 1790; *Maryland Journal and Baltimore Advertiser*, Oct. 5, 1790; Tyson, “Settlement of Ellicott’s Mills,” in Md. Hist. Soc., *Fund Publications*, No. 4, pp. 13, 16; Coxe, T., *View of the United States*, 85, 224; *Washington Gazette* (District of Columbia), June 24, 1797.

<sup>62</sup> *Essays and Notes on Husbandry*, 256.

<sup>63</sup> Haworth, *George Washington: Farmer*, 68–70, 96.

land fertilized by ground oyster shells, and the fresher lands devoted to tobacco. Sometimes the wheat farmer was a newcomer who had bought the land from the tobacco planter.<sup>64</sup>

The above mentioned reasons for shifting from tobacco to wheat were emphasized by the disturbed marketing conditions for tobacco and increased demand for foodstuffs due to the Revolutionary War, and particularly by the high prices for wheat that prevailed in several years following the outbreak of the French Revolution. Before the Revolutionary War the principal markets for American cereals had been the West Indies, Spain, Portugal, and the Madeira and Azores island groups. During the last two decades of the eighteenth century Great Britain and France had reached a stage where they imported American grain in years of scarcity at home or in the Baltic Provinces. The effect of this was to make the demand for grain very irregular and the industry highly speculative. In 1789 an acute scarcity developed, not only in Europe, but also in the West Indies, particularly the French West Indies. Prices were nearly double the usual level, and an unusually large quantity was exported from the United States.<sup>65</sup> The foreign market for grain, with the exception of Spain, was unusually good in 1792,<sup>66</sup> and prices appear to have been at high levels during most of the period until the Spring of 1796, although fluctuations, as shown by such quotations as are available, appear to have been extreme.<sup>67</sup> Thus, a Georgia paper of 1790 includes quotations ranging from \$7 to \$15 a barrel.<sup>68</sup>

As a result of these various motives and stimuli, before the close of the eighteenth century lower Virginia, especially the James River lands, had turned largely, though not exclusively, to the production of wheat and corn for export.<sup>69</sup> Rochefoucauld, for instance, observed that tobacco was not cultivated extensively in the vicinity of Richmond, although there were three inspection houses in the town for the up-river trade. The common rotation system about City Point on the James below Richmond was Indian corn, wheat, and fallow. Between Yorktown and Williamsburg he passed through a wooded and sparsely cultivated

<sup>64</sup> *American Husbandry*, I, 247, 262; Priest, *Travels*, 18.

<sup>65</sup> Pitkin, *Statistical View of Commerce*, 112; Coxe, T., *View of the United States*, 232; Jefferson, *Writings* (Ford), VI, 162; "Report of the Committee of the Privy Council on the Commerce and Navigation between His Majesty's Dominions and the Territories belonging to the United States, Jan. 28, 1791," in *Society of Ship-Owners of Great Britain, Collection of Interesting and Important Reports and Papers on Navigation and Trade*, 96 n., 117, 141; *State Gazette of North Carolina* (Edenton), May 28, 1789; Feb. 20, Mar. 6, 1790; Mar. 26, 1791; Morris, G., *Diary and Letters*, I, 197; *Maryland Journal and Baltimore Advertiser*, May 19, 1789.

<sup>66</sup> *Bowen's Virginia Centinel and Gazette, or the Winchester Political Repository*, Feb. 11, 1792; *Baltimore Daily Repository*, Jan. 20, Feb. 20, 1792; Jefferson, *Papers*, Vol. 79, No. 13711 (Manuscripts, Library of Congress); *Virginia Chronicle and Norfolk and Portsmouth General Advertiser* (Norfolk), Sept. 15, 1792.

<sup>67</sup> Jefferson, *Papers*, Vol. 83, No. 14435 (Manuscripts, Library of Congress); *Baltimore Daily Repository*, June 25, 1793; *Baltimore Daily Intelligencer*, Mar. 12, 1794; *North Carolina Journal* (Halifax), June 1, 1795; *North Carolina Gazette* (Newbern), June 6, 1795; *North Carolina Minerva and Fayetteville Advertiser*, July 9, 23, Nov. 5, Dec. 3, 31, 1796; Jan. 14, Nov. 18, 1797; Feb. 10, 1798; *Wilmington Chronicle and North Carolina Weekly Advertiser*, July 3, 10, 17, 31, Sept. 24, Oct. 22, 1795; Feb. 4, Apr. 14, Aug. 4, 1796; *Columbian Museum and Savannah Advertiser* Dec. 6, 1796.

<sup>68</sup> *Georgia Gazette* (Savannah), Jan. 7, Feb. 25, Apr. 1, 8, May 6, July 1, 22, Aug. 12, 19, 26, Oct. 21, 28, Nov. 4, 11, 1790.

<sup>69</sup> *Farmers' Register*, III, 748-750; Virginia, Board of Agriculture, *Report* (House Journal and Documents, 1842-43, Doc. 12), p. 52; Jefferson, *Papers*, Vol. 88, No. 15186 (Manuscripts, Library of Congress).

country where the principal rotation was Indian corn, wheat or other small grain, followed by three or four years of "rest" under grazing. The average yields were said to be 8 to 12 bushels of wheat and 12 to 14 bushels of Indian corn. He found similar conditions also between Williamsburg and Richmond.<sup>70</sup> The shift to grain production in this region is indicated roughly for various tidewater districts by customhouse statistics, which, however, reflect in part shipments from the back country. In 1791 Petersburg was also exporting considerable quantities of wheat and flour in addition to tobacco.<sup>71</sup>

#### FURTHER EXPANSION OF GRAIN PRODUCTION

During this period the most important wheat producing regions of the South were around Frederick, Maryland, the upper Shenandoah valley, and the northern piedmont section of Virginia. High prices for wheat appear to have stimulated a migration of Northern wheat growers into the Northern Neck. Between Frederick and Baltimore tobacco had largely given place to wheat. In the year ending July 14, 1788, the port of Alexandria, which shared with Georgetown, Baltimore, and Philadelphia in the export trade of this region, shipped 42,088 barrels of flour, 102,268 bushels of wheat, and 37,891 bushels of corn.<sup>72</sup>

For some years producers of wheat in northern Virginia and the lower Valley were handicapped by poor markets. The Philadelphia flour market was much better than that of Alexandria, and about 1792 Philadelphia flour commanded a premium over Virginia flour "seldom less and often more than 4s. Virginia money per barrel." This differential was reflected in a lower price paid for Virginia wheat, although it was said to be not inferior to Pennsylvania wheat. Brandywine millers even found it profitable to buy wheat in Virginia and pay the costs of transport. The inferiority of Virginia flour was attributed to the fact that while a large proportion "of the superfine flour" carried to Alexandria "would pass with credit in Philadelphia," owners, factors, and ship captains made a practice of mixing condemned flour with their cargoes after inspection. The farmers shipping to Alexandria also suffered from the abuses of the commission system characteristic of that market.<sup>73</sup>

In the last decade of the eighteenth century wheat was also being pushed southward in Virginia, displacing tobacco along both sides of the Blue Ridge wherever transport to market was feasible.<sup>74</sup> In 1793 Jefferson wrote that in spite of distance from market and lack of mills, Albemarle County was "going entirely into the culture of wheat." In the same year he wrote:<sup>75</sup>

<sup>70</sup> *Travels*, III, 45, 52, 58, 69, 113.

<sup>71</sup> York River District exports, July 5, 1773–July 5, 1774, in Virginia, *Miscellaneous Manuscripts* (Library of Congress); Washington, *Diaries* (Fitzpatrick), IV, 160.

<sup>72</sup> Bowen's *Virginia Centinel and Gazette, or the Winchester Political Repository*, Dec. 10, 1792; La Rochefoucauld, *Travels*, III, 247; *Maryland Journal and Baltimore Advertiser*, Aug. 4, 1789. See also for 1790–1791, *ibid.*, Oct. 25, 1791.

<sup>73</sup> Bowen's *Virginia Centinel and Gazette, or the Winchester Political Repository*, Dec. 10, 17, 1792; *Maryland Journal and Baltimore Advertiser*, Oct. 25, 1791.

<sup>74</sup> La Rochefoucauld, *Travels*, III, 142, 166; Washington, *Letters on Agriculture*, 55.

<sup>75</sup> Jefferson, *Papers*, Vol. 85, No. 14760; Vol. 86, No. 14861; Vol. 88, No. 15147 (Manuscripts, Library of Congress).

"In 4 years the 3 little Counties of Augusta, Rockbridge, and Rockingham . . . from having but one Manufacturing Mill only has upwards of 100 Merchant Mills in great perfection . . . and our adventuring farmers are coming with their Batteaus loaded down James River through the Blue Ridge within 3 and 4 miles of Lexington."

Other quantities were going through Rockfish Gap and by way of the James to Richmond. Still further to the southwest, in the neighborhood of Roanoke, tobacco seems to have been still the predominant crop as late as 1791.<sup>76</sup>

There was also a considerable extension of wheat production in the back country of North Carolina, between Charlotte and Salisbury, and in the general neighborhood of Camden, South Carolina. That point became a milling center, manufacturing in 1801 from 40,000 to 50,000 bushels of wheat annually for shipment to the West Indies. There was also a considerable milling industry in Laurens District, at Greenville and other points.<sup>77</sup>

In the year ending September 30, 1792, Virginia exported 395,376 bushels of wheat and 108,824 barrels of flour, while Maryland exported 140,121 bushels of wheat and 191,799 barrels of flour. Pennsylvania, supposed to be the leading wheat producing State, exported 130,723 bushels of wheat and 347,742 barrels of flour; but it is probable that some Virginia and Maryland wheat and flour were included in the Pennsylvania statistics.<sup>78</sup>

The expansion of wheat production went hand in hand with increased production of corn and other kinds of small grain. One important influence was the great development of grain distillation. As a result of various obstructions to West Indian trade there was a widespread tendency to substitute cereal beverages for rum.<sup>79</sup> There was an increase in export trade in Indian corn. In the year ending September 30, 1792, Maryland exported 232,142 bushels, and Virginia, 684,627 bushels. In the same period Pennsylvania exported 414,262 bushels. North Carolina shipped 156,725 bushels, South Carolina, 99,985 bushels, and Georgia, 11,667 bushels. In this year the exports of the South comprised over 60 per cent of the corn exports of the United States, 63 per cent of the wheat exports, and 38 per cent of the flour.<sup>80</sup>

Wheat producers were given a severe shock by the sudden drop in prices that occurred in the early part of 1796. In 1795 wheat had been around \$2 to \$2.50 a bushel and flour from \$12 to \$14 a barrel; but prices suddenly fell to less than half these levels. Prices seem to have recovered somewhat in the following year, probably due to crop failure in the Virginia back country, where near-famine conditions prevailed in some districts. In 1798 they were again low, but the check was only temporary.<sup>81</sup>

<sup>76</sup> Washington, *Diaries* (Fitzpatrick), IV, 163.

<sup>77</sup> *Ibid.*, 186; *Carolina Planter* (1844-5), I, 231; Ramsay, *History of South Carolina*, II, 217.

<sup>78</sup> Coxe, T., *View of the United States*, 414, 417.

<sup>79</sup> *Ibid.*, 88, 106-110, 227; Pitkin, *Statistical View of Commerce*, 120-123.

<sup>80</sup> Coxe, T., *View of the United States*, 414. Small shipments of bread and cornmeal have not been included.

<sup>81</sup> La Rochefoucauld, *Travels*, III, 109, 200, 243; *North Carolina Minerva and Fayetteville Advertiser*, Jan. 14, Nov. 4, 18, 1797; Feb. 10, 1798; *Hall's Wilmington Gazette*, Apr. 20, 1797; *State Gazette of North Carolina* (Edenton), June 30, 1796; *Columbian Museum and Savannah Advertiser*, June 3, July 1, 1796.

## RICE AND INDIGO AFTER THE CLOSE OF THE WAR

The rice industry was a number of years recovering from the effects of the war.<sup>82</sup> From 1783 to 1786 inclusive exports were only about one half those of the period just preceding the war. For 1788 statistics show a sudden increase to a higher level, which was maintained thereafter with some further increase, but the sudden change probably represents a modification in size of barrels that took effect in 1785.<sup>83</sup> There was a considerable increase in exports about the beginning of the last decade of the century, and during the next five or six years exports in tierces were about at the level of the years just preceding the war, reaching a maximum of 141,762 tierces of 600 pounds each, a quantity not destined to be exceeded for several decades. Of this amount, 106,419 tierces were from South Carolina, 12,152 from Georgia, 5,544 from North Carolina, and small quantities from other States.<sup>84</sup>

Like the tobacco planters, the rice planters were confronted with a changed market outlook following the Revolutionary War. Great Britain imposed a considerable import duty on rice consumed in that country, but encouraged the reëxport trade by drawback provisions. In 1788 rice destined for France was being first landed at Cowes and then reshipped. The principal other markets for American rice were the West Indies, France, Germany, the Baltic Provinces, and to a less extent Spain, Portugal, and the Madeiras. In 1783 South Carolina planters were warmly favoring the proposed treaty with Russia, counting on the Russian market for rice.<sup>85</sup>

The years immediately following the outbreak of the French Revolution brought an increased demand for rice, resulting in high prices. For 1795 and 1796 prices ranged from \$4.25 to \$6.00 per hundredweight, but in the next three years available quotations were only about half as high.<sup>86</sup>

After the Revolutionary War South Carolina rapidly resumed the production of indigo. By 1792 indigo exports amounted to 839,666 pounds, valued at \$1,019,754, as compared with 750,000 pounds, valued at £112,500, in 1771.<sup>87</sup> This suggests that before the Revolutionary War the bounty had not been the sole factor responsible for the continuance of the industry. It is probable, however, that the industry was not very profitable, and it is said that indigo planters turned as much as possible to rice cultivation, utilizing for the purpose every possible acre of inland swamp.<sup>88</sup>

<sup>82</sup> See table of rice exports and prices, in Appendix, Table 42.

<sup>83</sup> *South Carolina Statutes* (Cooper), IV, 607.

<sup>84</sup> See table of exports in Pitkin, *Statistical View of Commerce*, 119; Coxe, T., *View of the United States*, 417.

<sup>85</sup> *Gazette of the State of South Carolina* (Charleston), Jan. 8, 1784; Tyler, *Letters and Times of the Tylers*, I, 119; Jefferson, *Writings* (Ford), V, 59; Macpherson, *Annals of Commerce*, IV, 422; United States, *Journals of the Continental Congress*, XXV, 966.

<sup>86</sup> *Wilmington Chronicle and North Carolina Weekly Advertiser*, July 3, 10, 17, 31, Sept. 24, Oct. 22, 1795; Apr. 14, Aug. 4, 1796; *Hall's Wilmington Gazette*, Apr. 20, 1797; *City Gazette and Daily Advertiser* (Charleston), Mar. 23, 30, Apr. 6, 1798; *Georgia Gazette* (Savannah), Feb. 14, 21, 1799; *Wilmington Gazette*, Dec. 12, 1799.

<sup>87</sup> La Rochefoucauld, *Travels*, II, 499; Coxe, T., *View of the United States*, 416; *American Husbandry*, I, 443.

<sup>88</sup> Dubose, *Reminiscences of St. Stephens Parish* (Thomas, Huguenots in South Carolina), 67.



The industry was destined, however, to early extinction. Just after the signature of peace the British Government undertook to foster the industry in the British East Indies. Within a decade the effects of this encouragement began to be seen in depressed prices for indigo, which discouraged planters both in the former British Colonies and, as we have seen, in Louisiana.<sup>89</sup> About 1795 a country merchant near Charleston wrote to his correspondent in Charleston, "There being no sale for indigo for some time past, money comes in vastly slow, . . . There never was perhaps so great a quantity of indigo made in my neighborhood before."<sup>90</sup> About the same time cotton was coming into prominence. It was capable of production on a good deal of the land hitherto occupied by indigo, and the exceedingly high prices that prevailed for cotton, combined with the discouraging conditions of the indigo market, resulted by the close of the eighteenth century in the displacement of commercial indigo cultivation. Exports of indigo from South Carolina, amounting to 96,000 pounds in 1797, had dropped to 3,400 pounds by 1800. Here and there it was grown for home consumption, and until the Civil War it continued to be grown on a small scale in Orangeburg District, South Carolina, probably on a commercial basis.<sup>91</sup>

#### OTHER CHANGES IN AGRICULTURAL INDUSTRY

Following the short period of diminution in the practice of domestic manufacturing just after the close of the Revolutionary War,<sup>92</sup> came the depression of 1785-86, which led to a general return to domestic manufactures. In 1785 Richard Henry Lee deplored the restrictive European commercial policies that were forcing America from agriculture into manufacturing.<sup>93</sup> One result was a large increase in the production of hemp, flax, cotton, and wool,<sup>94</sup> which had been stimulated by the Non-Intercourse Acts, the scarcity of imported manufactured products during the Revolution, the social pressure, and the bounties and other legislative measures of the period.<sup>95</sup> In 1784 Virginia sought to encourage the exportation of hemp by providing for careful inspection at warehouses to be established at Richmond, Alexandria, and Fredericksburg.<sup>96</sup> In 1789 the Virginia delegates in Congress urged the propriety of placing a protective duty on hemp.<sup>97</sup> Flax seed was produced in considerable quantities for oil, and a number of oil mills sprang up in the back country. Ireland, the principal export market for American flax seed, required about 42,000 hogsheads annually,

<sup>89</sup> "Beginnings of Cotton Cultivation in Georgia," in *Georgia Historical Quarterly*, I, 41; Washington, *Diaries* (Fitzpatrick), IV, 178. See above, p. 74.

<sup>90</sup> Furman, "William Murrell," in *Southern History Assn., Publications*, VI, 233.

<sup>91</sup> Drayton, *View of South Carolina*, 127, 168; Doar, *Sketch of the Agricultural Society of St. James, Santee*, 9; Ramsay, *History of South Carolina*, II, 212; Warden, *Account of the United States*, II, 212, 444, 481-483; *Southern Agriculturist*, IX, 464; "Beginning of Cotton Cultivation in Georgia," in *Georgia Historical Quarterly*, I, 41. See below, p. 830.

<sup>92</sup> See above, p. 455.

<sup>93</sup> *Memoir*, II, 66.

<sup>94</sup> Coxe, T., *View of the United States*, 88; *Maryland Archives* (Coun. of Safety), XII, 278; (State Coun.), XVI, 211. Concerning the expansion of cotton production in that period, see below, p. 678.

<sup>95</sup> Concerning the encouragements of the period of nonintercourse, see Schlesinger, *Colonial Merchants and the American Revolution*, 518, 524, 528; cf. *United States, Journals of the Continental Congress*, IV, 224; *Virginia Statutes* (Hening), X, 15.

<sup>96</sup> *Ibid.*, XI, 412-416.

<sup>97</sup> Grigsby, *Virginia Federal Convention*, II, 271.

but the total exports from the South in 1792 amounted to less than 6,000 casks, principally from North Carolina and Maryland.<sup>98</sup> No hemp, however, was being exported in 1792, except 2,000 pounds from South Carolina.<sup>99</sup> This period also witnessed a large increase in the growth of upland cotton for domestic use and the beginnings of the sea-island cotton industry.<sup>100</sup>

The period immediately following the close of the Revolutionary War was one of considerable technical progress in Southern agriculture.<sup>101</sup> The crust of routine had been broken, and men's minds reached out to new and better ways of working and living. Tench Coxe speaks of "the high spirits and the golden dreams, which naturally followed such a war."<sup>102</sup> The correspondence of Washington, Jefferson, and other great figures of the period is filled with accounts of their agricultural observations and experiments. Washington experimented systematically with different methods of planting oats and with winter and spring barley as nurse crops for clover. He tried out with unfavorable results the Eastern Shore bean, which was highly acclaimed for its fertilizing properties, and various kinds of field peas both for harvesting and for green manure. He carried on experiments with buckwheat as a preparatory fallow for wheat, planted some seeds of Nankeen cotton which someone had sent him, and experimented with Siberian wheat, carrots, rib grass, and burnet. He investigated the effects of planting corn at various distances and in planting carrots, peas, and potatoes between the rows. He maintained various experiments in the fertilization of different crops, including marsh mud, marl, plaster of Paris, ground limestone, and various green manures. He tried different rates of seeding, painstakingly estimating the number of seeds in a given quantity of grain. He was occupied with improving the breeds of livestock, particularly of sheep and mules, and found time to concern himself with improved methods of fencing and new kinds of threshing machines.<sup>103</sup>

Jefferson's experiments were as varied as those of Washington. It was in this period he designed his famous plow.<sup>104</sup> John Binns, whose influence in extending the use of plaster of Paris and clover in Virginia is mentioned elsewhere, was experimenting in deep plowing, the influence of plaster on different kinds of soils, and with other practices, which he discusses in a treatise published about the close of the period.<sup>105</sup> His contemporary, John Beale Bordley, an Englishman who brought to America comprehensive knowledge of the new agriculture, resided many years in Maryland. As early as 1774 he was experimenting in mixing English breeds of cattle with the native stock.<sup>106</sup> From this time forward he pushed his experiments into many phases of agriculture. He maintained an

<sup>98</sup> Coxe, T., *View of the United States*, 140, 414; La Rochefoucauld, *Travels*, III, 185.

<sup>99</sup> Coxe, T., *View of the United States*, 415.

<sup>100</sup> See Chap. XXXIV.

<sup>101</sup> For details, see Chap. XXXIII.

<sup>102</sup> *View of the United States*, 27.

<sup>103</sup> Washington, *Writings* (Sparks), IX, 111, 274, 310, 324, 336; XII, 288, 320, 330-332; letters from Washington to his manager, Mr. Pearce, Mar. 16, and June 8, 1794, in Long Island Historical Society, *Memoirs*, IV, 52, 80; Haworth, *George Washington: Farmer*, 102, 105 & n.; Washington, *Writings* (Ford), XII, 102, 341.

<sup>104</sup> *Writings* (Washington), IV, 147.

<sup>105</sup> *Treatise on Practical Farming*, 3-6, 36-39, 58. See below, p. 803.

<sup>106</sup> *Essays and Notes on Husbandry*, 169.

active correspondence with Washington and other agriculturists of the period, and published a number of pamphlets and treatises.<sup>107</sup> It is interesting to find at this early period a Virginian, Jacquelin Ambler, experimenting extensively with lucerne and publishing his experiments in a treatise.<sup>108</sup> The interest in agricultural improvement during this period was also manifested by the establishment of agricultural societies.<sup>109</sup>

#### GENERAL ECONOMIC AND SOCIAL CHANGES OF THE PERIOD

Nevins has emphasized the fact that the Revolutionary War and the years immediately preceding and following it constituted not only a great political revolution but also an impressive social revolution, involving profound changes in laws and practices concerning religion, land tenure, penal affairs, charities, and education.<sup>110</sup> For the South it was also a great economic revolution.

The lessened attention to production of the colonial staples and the increased tendency toward general farming were due not only to the commercial isolation of the war period, and the subsequent stimulus of a newly developed European demand for grain, but also to the fact that the war had done much to develop internal channels of trade. By 1787 the commercial influence of Philadelphia and Baltimore had been extended not only into the remote settlements of Ohio and Kentucky but also far to the southward.<sup>111</sup> Products of the upper Carolinas were also being exported to the North, probably partly by ship from Charleston and partly by wagon. In return the region received from the North hardware and other manufactured products.<sup>112</sup> This tendency was greatly facilitated by the currency issues of the war, which supplied a medium of exchange to regions hitherto largely compelled to rely on a barter economy. Later the specie introduced by the French and British armies helped to promote internal trade, and then came the new Federal issues.<sup>113</sup> Virginians complained that the scarcity of money was due to the drain of specie to Northern cities.<sup>114</sup>

Domestic population was growing rapidly, and the increasing number of small-shop industries was expanding the domestic market for food and raw materials. About 1792 Tench Coxe was enthusiastic over the prospective development of Northern manufacturing markets for Southern raw materials. Hemp from the South was coming into the ropewalks of the Middle States, brewers of Philadelphia drew nearly as much barley from the Chesapeake Bay region as from Pennsylvania, and manufacturers of ships and cordage received nearly all their naval stores from the South. Since ships from the Middle States which carried supplies of flour, hay, onions, apples, and other products to the coastal sections of South

<sup>107</sup> These included: *Summary View of the Courses of Crops in the Husbandry of England and Maryland; Sketches on Rotations of Crops; Hemp; Country Habitations; Essays and Notes on Husbandry and Rural Affairs.*

<sup>108</sup> *Treatise on the Culture of Lucerne.*

<sup>109</sup> See below, p. 783.

<sup>110</sup> *American States during and after the Revolution*; cf. Eckenrode, *Revolution in Virginia*, 160.

<sup>111</sup> La Rochefoucauld, *Travels*, III, 198, 202.

<sup>112</sup> *Ibid.*, II, 498, 517; cf. Schaper, *Sectionalism and Representation in South Carolina*, 320.

<sup>113</sup> Nevins, *American States during and after the Revolution*, 557.

<sup>114</sup> Jones, J., *Letters*, 88.

Carolina and Georgia were compelled to return half laden, Coxe urged the exportation to the North of enough hemp, flax, cotton, and hops to make full cargoes. He also pointed to the beginnings of manufacturing in the South. Capital from Pennsylvania and Delaware was being invested in flour mills and other enterprises in Maryland and Virginia, and the latter State just after the Revolutionary War developed a schedule of import duties on the protective principle, which Coxe hoped would provide a large home market for Southern products.<sup>115</sup>

One of the greatest influences responsible for the increased emphasis on general farming was the movement of Northern and European farmers into the back country of the South. Though partially suspended by the war, it was accentuated after the treaty of peace.<sup>116</sup> From about 1775 to 1790 the population of Virginia increased from 420,000 to 747,610, in spite of the fact that large numbers were moving from Virginia into the sparsely settled back parts of the Carolinas and Georgia, the new lands made available by Indian cessions, and into Kentucky and Tennessee.<sup>117</sup>

This extensive migration of white farmers reduced the numerical weight and economic and political influence of the slaveholding population. The population of South Carolina, estimated at 40,000 whites and 90,000 blacks in 1765, had increased by 1790 to 140,178 whites and 107,094 slaves, besides a small number of free colored persons. A similar increase in relative importance of white farmers had occurred in the other Southern States.<sup>118</sup> It is probable that at no former period and in no subsequent period prior to the Civil War was the population of the Southern States so nearly homogeneous in characteristics and in economic life or so closely assimilated in character to the population of the Middle States. The extensive southward movement of farmers along both sides of the Blue Ridge had resulted in the establishment of a mode of life in the back country from Maryland to Georgia essentially similar in its broad outlines.

The differentiation of interests between this back-country population and the slaveholding and propertied classes of the tidewater sections led to a stirring political conflict that has been the theme of a number of historical monographs. The back-country population strove to break down the exclusive political privileges of the Tidewater; to widen the suffrage, broaden the basis of representation, enlarge the machinery of justice in the newly settled districts, and overthrow the established church and extend the application of the principle of religious toleration. Burdened by debt and handicapped by scarcity of currency, they also strove, with less success, in favor of cheap money and lax provisions for collecting indebtedness.<sup>119</sup> These and other interests, further intensified by the pre-

<sup>115</sup> *View of the United States*, 295-297, 302-308, 341; cf. Nevins, *American States during and after the Revolution*, 557.

<sup>116</sup> Drayton, *View of South Carolina*, 103; Grigsby, *Virginia Federal Convention*, I, 126 n.

<sup>117</sup> Tyler, *Letters and Times of the Tylers*, I, 164; Landrum, *Upper South Carolina*, 35; Lee, R. H., *Memoir*, II, 50.

<sup>118</sup> Drayton, *View of South Carolina*, 103; Nevins, *American States during and after the Revolution*, 327, 362; United States, *Century of Population Growth*, 47; cf. Hewatt's estimate, *South Carolina and Georgia*, II, 292.

<sup>119</sup> For details of this conflict the reader is referred to: Schaper, *Sectionalism and Representation in South Carolina*; Ambler, C. H., *Sectionalism in Virginia*; Chandler, *Suffrage in Virginia*; *idem*, *Representation in Virginia*; Nevins, *American States during and after the Revolution*; Weeks, *Church and State*

dominant localism growing out of isolation, arrayed a large proportion of these elements against the Constitution.<sup>120</sup> The increased economic homogeneity, however, due to the population movement from north to south, probably modified considerably these impulses of particularism and localism. Thus, even North Carolina, with its predominant population of poor and debt-ridden small farmers, was brought finally to ratify the Constitution after first rejecting it.<sup>121</sup>

As the war and the years immediately following had greatly increased the relative numbers and influence of the yeomen and pioneer farmer classes of the back country, so it had weakened the economic position of the colonial aristocracy. A considerable proportion had espoused the Tory cause and had been mulcted of their property in the confiscation acts. The interruption of trade had greatly affected the prosperity of the commercial planting regions, which had also suffered heavily from the depredations of war. Many planters had been tempted by high prices arising from currency inflation to sell their plantations, only to find the proceeds become nearly worthless in the process of rapid depreciation.<sup>122</sup> In Virginia large landowners who had been renting portions of their estates to tenants on long leases for cash rentals found that through currency depreciation these rentals in many cases became insufficient to pay taxes. In order to relieve landlords, Virginia provided in 1777 that the land tax should be divided between landlord and tenant, the former to pay only on a value equivalent to twenty years' purchase of the rental.<sup>123</sup> The abolition of primogeniture and entails, strongly resisted by the conservative classes, was also a powerful influence in breaking down the great colonial estates; and together with the abolition of quitrents, the confiscation of the large proprietary grants, and the post revolutionary policies for distribution of land, made for a greater diffusion of landed property.<sup>124</sup>

#### CHANGE IN THE STATUS OF SLAVERY

The influx of nonslaveholders and the impoverishment of the old slaveholding classes provided a favorable soil for the development of the strong antislavery sentiment, especially in the border States, which was notable in this period and for some time thereafter. While the colonial acts to tax or otherwise restrict slave importations were largely due to economic motives,<sup>125</sup> the late colonial period had witnessed also the beginnings of sentimental opposition to slavery. This developed first among the Quakers, in the last quarter of the seventeenth cen-

in *North Carolina*; Eckenrode, *Separation of Church and State in Virginia*; Lingley, *Transition in Virginia from Colony to Commonwealth*; Wagstaff, *State Rights and Political Parties in North Carolina*; Boyd, *The Federal Period (History of North Carolina, II)*; Phillips, U. B., "South Carolina Federalists," in *American Historical Review*, XIV; Sikes, *Transition of North Carolina*.

<sup>120</sup> Cf. the various works just cited and also Beard, *Economic Interpretation of the Constitution*, especially Chap. II, and pp. 281-291; Beveridge, *John Marshall*, I, 250-264, 312.

<sup>121</sup> Cf. the shift of sentiment as traced in Wagstaff, *State Rights and Political Parties in North Carolina*, 13, 23-27.

<sup>122</sup> Nevins, *American States during and after the Revolution*, 192; McCrady, *South Carolina in the Revolution, 1775-1780*, pp. 221-226.

<sup>123</sup> Lee, R. H., *Memoir*, II, 45; *Virginia Statutes* (Hening), IX, 356.

<sup>124</sup> Eckenrode, *Revolution in Virginia*, 170; Nevins, *American States during and after the Revolution*, 202.

These changes are described in detail in Chap. XXVII.

<sup>125</sup> See above, pp. 356-358.

ture, but their convictions did not gain greatly in force until well after the beginning of the eighteenth century. The growth of antislavery sentiment was accelerated when it became evident that slavery was unprofitable north of Maryland. In Massachusetts slavery died a gradual death through the growth of customary recognition of its undesirability. In Connecticut a bill for gradual emancipation was passed in 1784.<sup>126</sup> In the late years of the eighteenth century or early in the nineteenth the Middle States also passed provisions for gradual emancipation.<sup>127</sup> In the South sentimental opposition to slavery was given impetus among the educated classes by the philosophic idealism that constituted the intellectual background of the American and French revolutions.<sup>128</sup>

Antislavery sentiment in Virginia and Maryland was also nourished by the fact that the change toward general farming left many planters with a superfluous labor supply. Thus, George Washington wrote:<sup>129</sup>

"It is demonstratively clear, that on this Estate (Mount Vernon) I have more working negros by a full moiety, than can be employed to any advantage in the farming system, and I shall never turn Planter [tobacco] thereon."

He was averse to selling them or even to leasing them except by families, while the demand was for hiring individual laborers. Consequently, he found himself facing financial disaster. In August, 1799, he wrote as follows:<sup>130</sup>

"Something must [be done] or I shall be ruined; for all the money (in addition to what I raise by crops, and rents) that have been *received* for Lands, sold within the last four years, to the amount of Fifty thousand dollars, has scarcely been able to keep me afloat."

Hundreds of other large planters found themselves in the same condition. Toward the close of the century a French traveller portrayed the dismay of a planter at the increase of the slave population in the following conversation:<sup>131</sup>

"What is the matter, neighbor, has the blight attacked your tobacco? . . . No; but two wretched negresses have been brought to bed. These creatures breed like flies."

The artisan class also, made prosperous by the war and rendered hopeful by the strong tendency toward domestic manufactures, contributed its weight to the antislavery movement, and fostered legislation to discourage the employment of slaves in nonagricultural occupations.<sup>132</sup>

These conditions were responsible for the State legislation of the period against the slave trade.<sup>133</sup> Probably in no other period would the South have agreed to

<sup>126</sup> Bettle, "Notices of Negro Slavery," in Penn. Hist. Soc., *Memoirs*, I, 364-366, 372; Moore, G. H., *Slavery in Massachusetts*, 18, 26, 74, 79-110; Weeks, *Southern Quakers and Slavery*, *passim*; Fowler, *The Negro in Connecticut*, 18; Steiner, *Slavery in Connecticut*, 16, 30.

<sup>127</sup> Cooley, *Slavery in New Jersey*, 26; Heston, *Slavery and Servitude in New Jersey*, 10-12.

<sup>128</sup> Du Bois, *Suppression of the African Slave-Trade*, 41.

<sup>129</sup> *Writings* (Ford), XIV, 196.

<sup>130</sup> *Loc. cit.* See also, Washington, *Papers*, Vol. 287, No. 38308 (Manuscripts, Library of Congress).

<sup>131</sup> Bayard, *Voyage dans l'Interieur des États-Unis*, 299. The quotation is translated by the present writer.

<sup>132</sup> *Virginia Statutes* (Hening), XI, 404.

<sup>133</sup> See p. 648.

the constitutional compromise that required Federal prohibition of the trade in 1808.<sup>134</sup> The antislavery sentiment of the period also resulted in a considerable alleviation of the condition of slaves and in a decided movement toward voluntary manumission, especially in Maryland and Virginia.<sup>135</sup> Marylanders and Virginians were already becoming keenly aware of the unfavorable economic contrasts between their own States and Pennsylvania. Many Southern leaders of opinion frankly admitted the evils of slavery, though the majority were very skeptical of the possibility of emancipation. Some were in favor of suppressing the slave trade; others advocated gradual emancipation; but the majority preferred to leave the question to time.<sup>136</sup>

Because of the influences and outspoken declarations of the great liberals of the period it is easy to exaggerate the strength of antislavery sentiment. Even in Virginia the law providing for voluntary manumission met much opposition, and in 1785 a resolution was passed by deciding vote of the Speaker to consider the repeal of the act.<sup>137</sup> Unsuccessful attempts were made in Virginia and Maryland to provide for gradual emancipation by freeing all children born after a certain date, and even Jefferson recognized that "the public mind would not yet bear the proposition."<sup>138</sup> The lower South swung more and more away from even restricting the slave trade, and in 1793 the South Carolina legislature by a large majority refused to extend the restriction.<sup>139</sup> Jefferson shrewdly appraised Southern sentiment in 1786, as follows:<sup>140</sup>

"The disposition to emancipate them is strongest in Virginia. Those who desire it, form, as yet, the minority of the whole State, . . . In Maryland and North Carolina a very few are disposed to emancipate. In South Carolina and Georgia, not the smallest symptom of it."

<sup>134</sup> Du Bois, *Suppression of the African Slave Trade*, Chap. VII; Phillips, U. B., *American Negro Slavery*, 139-147. The consequences of the prohibition of the slave trade are discussed in Chap. XXVIII.

<sup>135</sup> *Virginia Statutes* (Hening), XI, 39; Nevins, *American States during and after the Revolution*, 194, 449-451; Phillips, U. B., *American Negro Slavery*, 121-131; Eckenrode, *Revolution in Virginia*, 300; Ballagh, *Slavery in Virginia*, 121. See above, Chap. XXII.

<sup>136</sup> Brissot de Warville, *New Travels in the United States*, 290; La Rochefoucauld, *Travels*, III, 232; Bonnet, *Réponse aux Principales Questions sur les États-Unis*, I, 46; Winterbotham, *View of the American United States*, III, 111, 254; Jefferson, *Notes on Virginia* (Ford, 1894), p. 177; Tucker, St. G., *Dissertation on Slavery*, 65, and *passim*; cf. Halle, *Baumwollproduktion*, 38, 43-45; Brackett, *The Negro in Maryland*, 60-64; Poole, *Anti-Slavery Opinions before 1800*, *passim*; Locke, *Anti-Slavery in America, 1619-1808*, *passim*.

<sup>137</sup> Madison, *Writings* (Hunt), II, 203.

<sup>138</sup> *Writings* (Washington), I, 49; Brackett, *The Negro in Maryland*, 52-54; Halle, *Baumwollproduktion*, 42.

<sup>139</sup> Washington, *Writings* (Sparks), X, 224.

<sup>140</sup> *Writings* (Washington), IX, 290.

## CHAPTER XXVII

### POST COLONIAL LAND POLICY AND TENURE

Modifications in Colonial Systems of Tenure, 618. Disposition of Lands in Kentucky and Tennessee, 622. Land Policies of South Carolina and Georgia, 628. Creation of a Federal Public Domain in the South, 630. Federal Land Policies, 631. Policies of the Southwestern States in Disposing of Federal Land Grants, 635. General Consequences of Post Colonial Land Policies in the South, 638. Supply and Value of Land, 640. Tenancy and Tenant Contracts, 646.

#### MODIFICATIONS IN COLONIAL SYSTEMS OF TENURE

The transition to allodial tenure consisted largely in steps to get rid of quitrents, which, it is estimated, amounted to approximately \$100,000 yearly at the outbreak of the Revolution.<sup>1</sup> In 1776 Virginia provided that tenants holding lands in fee tail should henceforth hold them in fee simple, and in 1777, that quitrents should be abolished in all parts of the commonwealth except the proprietary holdings of the Northern Neck. Owners of land in that region were allowed a discount on their taxes corresponding to the amount of quitrents paid. Provision was made for collection of rents in arrears, except on the "Western waters."<sup>2</sup> An act of 1784 abolished quitrents in the Northern Neck. Maryland had taken this step in 1780 with regard to proprietary quitrents.<sup>3</sup> Apparently, in the other States the abolition of quitrents payable to the royal government was regarded as an incident of the declarations which registered the recognition of a formal separation from the mother country. The several Colonies, familiar as they were with the general futility of the quitrent system, seem to have considered it not worth while to assert rights to quitrent payments as the successors to the royal government; accordingly, they soon began to levy land taxes as a primary mode of obtaining revenue. Georgia, in 1777, specified that on certain lands granted by the State there should be no charges other than the ordinary official fees and 2 shillings rent per hundred acres "as heretofore." However, the acts of 1780 and 1783 provided for grants in fee simple, and the latter act stressed the fact that grants should be free of all charges except office fees. Attempts of the Henderson Company to impose quitrents on Kentucky settlers were soon frustrated.<sup>4</sup>

The new commonwealths were also confronted with the problem of large proprietary holdings that had not yet been transferred to private ownership. Among these were Maryland proprietary lands, the extensive Fairfax holdings in the Northern Neck, large land-company holdings in western Virginia, and the Granville proprietorship in North Carolina. The several proprietors were of Tory

<sup>1</sup> Jameson, *American Revolution*, 50.

<sup>2</sup> *Virginia Statutes* (Henning), IX, 226, 359; cf. Harrison, F., *Virginia Land Grants*, 140.

<sup>3</sup> Madison, *Writings* (Hunt), II, 207; Bond, *State Government in Maryland*, 15; McSherry, *History of Maryland*, 262.

<sup>4</sup> Butler, M., *History of Kentucky*, 31; Collins, L., *Historical Sketches of Kentucky*, II, 512; *Georgia Laws* (Prince, 1837), pp. 518, 520, 522.



sympathies, and accordingly, during the course of the war their holdings had been subjected to the acts of confiscation.<sup>5</sup> Such action, however, had to reckon with the attitude of the courts. The treaty of peace had guaranteed the land titles that had been impaired by the Tory confiscation acts of the various commonwealths, and these guarantees were confirmed in the treaty negotiated by Jay. In the case of the Fairfax holdings, Virginia had not put the confiscation acts into effect, and the treaty of peace put an end to subsequent proceedings under them. A test case was tried in regard to the holdings of one Hunter, who had purchased a tract of the Fairfax lands from the State of Virginia after the passage of the confiscation act. The Fairfax title was upheld by the lower court, but the decision was reversed nearly two decades later by the Virginia Court of Appeals. The United States Supreme Court, however, again upheld the titles based on Fairfax deeds. Meanwhile most of the remaining Fairfax holdings had been purchased by John Marshall and a group of associates. They made an agreement in 1796 with the Virginia legislature, whereby the new holders agreed to relinquish their rights to waste or unappropriated lands on condition that the legislature would confirm their title to lands specifically appropriated by Lord Fairfax and his devisees. The question as to the validity of titles acquired from Lord Granville after passage of the confiscation acts was decided by a local jury against the rights thus acquired. On reference to the Federal court, the case remained long without decision, and was finally stricken from the docket.<sup>6</sup>

One of the most important elements of Old World tenure to be engrafted on colonial tenures in the South was the custom of primogeniture and the legal provisions supporting it in the laws of inheritance, particularly those permitting entails, further strengthened in effect by the customary disinclination to divide a landed estate by sale.<sup>7</sup> The operation of these phases of the land system, being strictly aristocratic in intent and effect, came into definite conflict with the democratic philosophy of the Revolutionary movement. According to Professor Jameson, at the outbreak of the Revolution Maryland had already abolished primogeniture, and South Carolina had abolished entails. An act to abolish entails and regulate the order of descent was passed by Maryland in 1786.<sup>8</sup> Scarcely was the ink dry on the Declaration of Independence before Jefferson and his followers were proposing a measure for the abolition of entails in Virginia, and a clause against entails was included in the Declaration of Rights attached to the Virginia constitution of 1776. The old aristocratic elements struggled hard but in vain against these measures.<sup>9</sup> The North Carolina Constitution of 1776 instructed the legislature to regulate entails in such manner as to prevent perpetuities. Legislative action was taken in 1784. For some years, however,

<sup>5</sup> Grigsby, *Virginia Federal Convention*, I, 278, 288; *North Carolina State Records*, XVI, 889. See also Chap. XXVI.

<sup>6</sup> Beveridge, *John Marshall*, I, 191-195; IV, 147-157 & nn.

<sup>7</sup> Ballagh, "Southern Economic History—the Land System," in Amer. Hist. Assn., *Annual Report*, 1897, pp. 101-129. Cf. p. 399.

<sup>8</sup> *American Revolution*, 56; *Maryland Laws* (Maxcy), II, 16; cf. Morris, R. B., "Primogeniture and Entailed Estates in America," in *Columbia Law Review*, XXVII, 25.

<sup>9</sup> Nevins, *American States during and after the Revolution*, 146, 325; Eckenrode, *Revolution in Virginia*, 170; Lingley, *Transition in Virginia from Colony to Commonwealth*, 179-181.

North Carolina provided for equal partition among sons, but not among daughters except when no sons survived.<sup>10</sup> In 1784 Virginia abolished the rule of primogeniture.<sup>11</sup> A bill to modify the law of descent in the interest of equal participation by children was introduced in the South Carolina legislature in 1783, but final action was not taken for nearly a decade. The constitution of 1790 instructed the legislature to abolish primogeniture, which was accomplished in 1791.<sup>12</sup> The Georgia constitution of 1777 provided for abolition of primogeniture and entails, but in 1785 the legislature made exception in the case of French residents, permitting them to observe the French laws.<sup>13</sup> Kentucky took action in 1796 to convert estates in fee tail to fee simple.<sup>14</sup>

The laws modifying the rule of primogeniture, however, did not seriously limit freedom of bequest except by removing the right of entail. It is probable that the custom of primogeniture by will changed but slowly. About the beginning of the nineteenth century Rochefoucauld observed, "The manners of the country almost universally incline the testators rather to follow the ancient customs, than to regard the intentions of the more recent law."<sup>15</sup> Settlers in the mountains of North Carolina, hating primogeniture, had established the custom of giving the homestead to the youngest son.<sup>16</sup>

The Revolutionary legislation against the rule of primogeniture in intestacy and against entails gradually exerted a profound influence on the practice of bequest. Toward the close of the ante bellum period a tendency for the law and practice of inheritance to produce subdivision, followed to some extent by a process of recombination, was observed in the rice region of South Carolina and Georgia.<sup>17</sup> Statistical evidence has already been presented showing that the influences making for subdivision were more than offset in the latter part of the ante bellum period by other forces making for consolidation.<sup>18</sup>

By the middle of the third decade of the nineteenth century the effects of breaking down the huge estates of the late colonial period were becoming noticeable in Virginia. Some contemporary writers argued that the tendency was extremely uneconomical. Estates that had been developed into definite and coherent economic organisms were broken into uneconomic fragments on the death of the owner; and in many cases particular fragments fell into the hands of those incapable of effective management. There was an observable tendency toward consolidating such fragments by purchase or otherwise into larger economic units, but it was a costly and time-consuming process, obstructed by

<sup>10</sup> *North Carolina State Records*, XXIII, 984; XXIV, 572-577; cf. Boyd, *The Federal Period (History of North Carolina, II)*, 2; Jameson, *American Revolution*, 57.

<sup>11</sup> *Virginia Statutes* (Hening), XII, 138.

<sup>12</sup> *South Carolina Gazette and General Advertiser* (Charleston), Aug. 12, 16, 1783; *South Carolina Statutes* (Cooper), I, 192; V, 162-164; cf. Nevins, *American States during and after the Revolution*, 202; Jervay, *Robert Y. Hayne*, Intro., p. 1.

<sup>13</sup> *Georgia Laws* (Marbury & Crawford), 12, 244. See also constitution of 1789. *Ibid.*, 18, sec. 6; *Georgia Laws* (Prince, 1837), p. 268.

<sup>14</sup> *Kentucky Statutes* (Littell & Swigert), I, 314.

<sup>15</sup> *Travels*, III, 83.

<sup>16</sup> Arthur, *Western North Carolina*, 253.

<sup>17</sup> Lingley, *Transition in Virginia from Colony to Commonwealth*, 181; Russell, R., *North America, Its Agriculture and Climate*, 139, 172.

<sup>18</sup> See below, pp. 529-532.

dower rights and other legal obstacles.<sup>19</sup> Other observers, however, recognized not only the broad social and political desirability but also the economic advantages in the tendency toward subdivision.<sup>20</sup>

In Louisiana the French land system was of influence mainly along the lower Mississippi. Some seigniorial grants had been made, and traces of this tenure survived. Most of the feudal incidents characteristic of French tenure under the Coutume de Paris disappeared in the New World, and in Louisiana tenure was largely *franc aleu*, closely akin to English allodial tenure. Primogeniture and entail, as we have noted, had not taken deep root.<sup>21</sup>

Of the seven Colonies having claims to lands west of the Appalachians, four were Southern. Maryland alone of the Southern Colonies had no western lands. These claims were at best shadowy.<sup>22</sup> Nevertheless, though their uncertain validity was later an important consideration in inducing the States to cede their holdings to the Federal Government, it did not deter them from actively disposing of them to private individuals. Extensive portions of Kentucky and Tennessee had been distributed by Virginia and Kentucky respectively before the acts of cession, and Georgia continued to dispose of her western lands for a decade and a half after the establishment of the Federal Government. In fact, during the half century between the beginning of the trans-Appalachian movement and the close of the War of 1812, the influence of Federal policies was small, as compared with the influence of State policies, in the disposition of land south of the Ohio, because of the tardiness of the cessions, the retarding effect of the War of 1812, delays in putting Federal land policies into operation, and greater cost and difficulty of obtaining lands under Federal policies.<sup>23</sup> In fact, total sales up to the close of 1815 in land offices east and west of Pearl River were only 365,980 acres, and at Huntsville, Alabama, 216,350 acres. Most of the former entries were in the Tennessee River valley in Alabama, and the latter group mainly in southwestern Mississippi.<sup>24</sup>

The general pattern of law and practice in the land policies of Southern commonwealths after the Revolution were essentially similar to those of the late colonial period.<sup>25</sup> In theory no land could be settled until Indian titles were extinguished by formal treaty, but eager pioneers were continually encroaching on tribal lands.<sup>26</sup> Benjamin Harrison, of Virginia, wrote in 1782, "I confess my feelings are hurt and my humanity shocked" by "the unbounded thirst of our people after Lands that they cannot cultivate, and the means they use to

<sup>19</sup> *Farmers' Register*, III, 458; IV, 287, 565-568; V, 578; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 150.

<sup>20</sup> *Farmers' Register*, IV, 180; VII, 210.

<sup>21</sup> Hamilton, P. J., *Latin Land Laws and Land Systems in the South* (*South in the Building of the Nation*, V), 53-57; Phelps, *Louisiana*, 57, 70; Sato, *Land Question in the United States*, 43. Concerning the systems of land grants, see above, pp. 150, 329, 338, 381, 391.

<sup>22</sup> Sato, *Land Question in the United States*, 26, 138; Treat, *National Land System*, 2.

<sup>23</sup> Cotterill, "National Land System in the South, 1803-1812," in *Mississippi Valley Historical Review*, XVI, 495-499; Treat, *National Land System*, 3, 371-373.

<sup>24</sup> Compiled from Table in *ibid.*, App., pp. 406-409; cf. Cotterill, "National Land System in the South, 1803-1812," in *Mississippi Valley Historical Review*, XVI, 504.

<sup>25</sup> Chap. XVII.

<sup>26</sup> For example, see *North Carolina State Records*, XVI, 924; *Gazette of the State of South Carolina* (Charleston), Nov. 11, 1784.

possess themselves of those that belong to others. An Indian has his National rights as well as a white man."<sup>27</sup> The increased importance of sale policies, as compared with headrights, in the latter part of the colonial period<sup>28</sup> was accentuated after the Revolution by a number of conditions. For one thing, the importation of African Negroes contributed less than formerly to the westward progress of population in the border States. Furthermore, a tremendous increase in the fever of land speculation after the Revolution emphasized the importance of acquisition by purchase at low prices without the requirement of actual settlement. The general principle of the headright, however, continued to be recognized in provisions for grants to individual settlers on account of themselves and in some cases the members of their families, as well as in the tacit or legal acceptance of preëmption rights of the ubiquitous squatters. The Revolution also brought about a great extension of the policy of granting military bounties.<sup>29</sup> The characteristic Southern system of land grants by warrant, location, special survey, and caveat was also carried over into the post colonial period, with similar results as in the colonial period—scattering settlement, irregular farm boundaries, conflicting claims, uncertainty of location, and excessive litigation.<sup>30</sup>

#### DISPOSITION OF LANDS IN KENTUCKY AND TENNESSEE

The operation of these characteristic features of Southern land policy is well illustrated in the distribution of lands in Kentucky. A Virginia act of June, 1776, recognized a right of preëmption in the case of persons who had settled on the "Western waters," and the following year every head of a family settling in the country was allowed 400 acres. In 1779 a comprehensive land act was passed, which established a land court in the Western country to adjudicate claims, and provided for the sale of areas unlimited in amount, at the rate of £40 currency per hundred acres, increased in 1780 to £160 to offset currency depreciation. Provision was made, however, to permit needy settlers to purchase limited amounts at lower rates, paying only the old colonial "composition" fee of 10 shillings per hundred acres.<sup>31</sup> Virginia accepted her paper money nearly at par for land, and the great depreciation made land much cheaper than the nominal price might indicate.<sup>32</sup> Virginia also granted military bounties for service in the Revolutionary War on a scale even more liberal than those for service in the French and Indian War.<sup>33</sup> An area was reserved to satisfy these claims, bounded by the Green river on the east, from the head thereof to the

<sup>27</sup> Letter to Governor Martin of North Carolina, Oct., 1782, in *North Carolina State Records*, XVI, 442.

<sup>28</sup> See above, pp. 387, 392.

<sup>29</sup> The essential characteristics of the pre-Revolutionary policies and practices carried over into the post colonial period are described in Amelia C. Ford's *Colonial Precedents of Our National Land System*, particularly Chaps. V-VII.

<sup>30</sup> See above, p. 396. For detailed provisions see, for instance, *Virginia Statutes* (Shepherd), I, 64-77. On the influence of the Southern practice on Federal practice, see Treat, *National Land System*, 15-40; Taylor, Howard C., *Educational Significance of the Early Federal Land Ordinances*, 9-13.

<sup>31</sup> *Virginia Statutes* (Hening), IX, 355-356; X, 42, 50-52, 177-180, 245, 431; XI, 296; XII, 89, 238.

<sup>32</sup> Roosevelt, *Winning of the West*, II, 93.

<sup>33</sup> *Virginia Statutes* (Hening), X, 331 n.; Treat, *National Land System*, 230, 329; Wilson, S. M., *First Land Court of Kentucky*, 150-153. See above, p. 394.

Cumberland mountains, along the said mountains to the Carolina line, along that line to the Tennessee river, and along that river to the Ohio. Reservation was also made of the lands granted in 1778 to Henderson and Company in satisfaction of their claims and the lands claimed by the Cherokees.<sup>34</sup>

The act of 1779 provided for the order of precedence of the various classes of claims not based on purchase, as follows: (1) surveys made by a lawful surveyor before January 1, 1778, upon military warrants under the proclamation of 1763; (2) 400 acres allowed each male adult for actual settlement before that date; (3) preemption rights of 400 acres per male adult for actual settlement after January 1, 1778, on condition of making one crop of corn or residing a year on the land; (4) preemption rights of 1,000 acres to persons who had built a hut or otherwise made improvements prior to January 1, 1778; (5) preemption rights of 1,000 acres appendant to the preemption claim of 400 acres for actual settlement following that date.<sup>35</sup> While the Virginia act of cession occurred in 1784, the surveyor's books in Kentucky were open for the location of Virginia grants until 1792, when Kentucky became an independent State, and afterwards the Kentucky legislature extended from time to time the final date for the completion of title on such warrants as had been already entered. Under this legislation land claims were established with notable rapidity. As early as 1780 the Land Court reported entries and surveys amounting to 3,465,896 acres, or over one eighth of the area of the commonwealth.<sup>36</sup>

The results of the Virginia policy in Kentucky were most unfortunate. Warrants were issued for five to ten times as much land as was available for entry. The location of lands was a process of blindman's buff, with all the advantage in favor of shrewd speculators familiar with legal procedure. A large part of the land became subject to conflicting claims. Many settlers, lacking means to defend their titles, were ejected in favor of claimants who had complied more shrewdly with the law. The fact that many occupants were thus deprived not only of the land but also of the improvements led the Kentucky legislature to pass a series of "occupying claimant" statutes, which provided for the adjudication of rights of compensation in connection with the suit for settlement of title.<sup>37</sup> The statutes were declared invalid by the United States Supreme Court as a violation of the compact between Kentucky and Virginia at the time of separation.<sup>38</sup> The difficulties of obtaining an honest land title in the State are suggested in the following contemporary doggerel:<sup>39</sup>

<sup>34</sup> Ayres, "Land Titles in Kentucky," in Ky. State Bar Assn., *Proceedings*, 1909, p. 171.

<sup>35</sup> *Virginia Statutes* (Hening), X, 35-65, 177-180; "Mission to Virginia," in *Louisville Public Advertiser* (Kentucky), Apr. 20, 1822; cf. Ambler, C. H., *Sectionalism in Virginia*, 44; Jillson, *Kentucky Land Grants*, 3-5; Roosevelt, *Winning of the West*, II, 92-94; Wilson, S. M., *First Land Court of Kentucky*, 3-13.

<sup>36</sup> *Louisville Public Advertiser* (Kentucky), Apr. 20, 1822; *Kentucky Statutes* (Littell & Swigert), II, 714; Ayres, "Land Titles in Kentucky," in Ky. State Bar Assn., *Proceedings*, 1909, pp. 43, 172, 175; Wilson, S. M., *First Land Court of Kentucky*, 43.

<sup>37</sup> *Louisville Public Advertiser* (Kentucky), Apr. 20, 1822; *Kentucky Gazette* (Lexington), June 2, 1792; *Virginia Chronicle and Norfolk and Portsmouth General Advertiser* (Norfolk), Sept. 21, 1793. Concerning the numerous complications, see Ayres, "Land Titles in Kentucky," in Ky. State Bar Assn., *Proceedings*, 1909, pp. 172-175.

<sup>38</sup> Collins, L., *Historical Sketches of Kentucky*, I, 30.

<sup>39</sup> *Kentucky Gazette* (Lexington), July 14, 1792.

*"Directions relating to the purchasing and selling of Land*

"First see the Land which thou intendst to buy  
 Within the Sellers titles clear doth lie,  
 And that, no Women to it doth lay claim  
 By dow'ry, jointure, or some other name  
 That may it 'cumber. Know if bound or free  
 The Tenure stand, and that from each Feoffee.  
 It be released; That the seller be so old  
 That he may lawful sell, thou lawful hold:  
 Have special care that it not mortgag'd be,  
 Nor be entailed on posterity.  
 Then if it stand in statute bound or no,  
 Be well advis'd, what quit rent out must go.  
 What custom service, hath been done of old  
 By those who formerly the same did hold,  
 And if a wedded woman put to sale,  
 Deal not with her unless she brings her male;  
 For she doth under covert baron go,  
 Altho' sometimes some traffic so (we know)  
 The bargain being made and all this done,  
 Have special care to let the charter run  
 To thee, thy heirs, executors, assigns,  
 For that beyond thy life securely binds,  
 These things foreknown and done, you may prevent,  
 Those things rash buyers many times repent:  
 And yet when you have done all that you can,  
 If you'll be *sure*—deal with an honest man."

The Virginia land grants in Kentucky resulted in a great degree of concentration in ownership. Of the grants located, over 60 per cent were for 1,000 acres and less than 5,000, and about 4 per cent were for 5,000 acres and less than 10,000. There were 250 grants of 10,000 and less than 20,000; 89 for 20,000 and less than 40,000; and 44 for 40,000 and less than 100,000. Three grants were for 100,000 acres or more.<sup>40</sup> These represent only single warrants. No attempt has been made to determine the total grants to individuals or families, but some conception of the tendency is suggested by a few cases. Thus, there are listed in the name of one Dorsey Pentecost 55 separate grants of 1,000 acres each. Christopher McConnico received 49 grants for a total of 254,284 acres, while James Reynolds received 4 grants aggregating 254,240 acres. Much of the land was in the hands of speculators for resale, and the papers of the day contained numerous advertisements of tracts ranging up to as much as 400,000 acres. There was much complaint of land monopoly, and proposals were made to break up the large holdings by taxation.<sup>41</sup>

Although Virginia had issued warrants to an area much larger than was available after excluding lands reserved, it is probably in this sense only that we can accept the statement that Kentucky lands "were all given out by 1790."<sup>11, 42</sup>

<sup>40</sup> Compiled from lists of grants, in Jillson, *Kentucky Land Grants*, 6, 15-139.

<sup>41</sup> *Kentucky Gazette* (Lexington), July 14, 1792; Nov. 16, 1793; July 18, Sept. 26, 1798; Jillson, *Kentucky Land Grants*, 15-139.

<sup>42</sup> McDougale, *Slavery in Kentucky*, 4.

It is probable that in addition to the reservations and the areas acquired from the Indians after that period, there still remained tracts of the less desirable lands for which patent had not been issued.

Kentucky, therefore, proceeded to enact provisions during a half century or more for the further disposal of public lands. It was little behind Virginia in the liberality of its early terms. In 1793 the State began distributing lands, following closely the policies already established by Virginia. The resulting grants, consisting of some 9,000 separate entries, appear to have resulted in about as large concentration in ownership as in the case of the Virginia grants summarized above, and to have further increased the confusion as to land titles.<sup>43</sup> Kentucky granted preemption claims for actual settlement and also offered land for sale. Earlier sale policies appear to have been without limit as to amount purchasable. Later, however, actual settlement and definite limitation of amount were incorporated as elements of the policy. This was particularly the case with lands reserved during the early years of settlement. Thus, until 1797 no person except a soldier with bounty rights could make entry in the military reserve south of Green River, but in that year the legislature provided that any person possessed of a family and over twenty-one years of age was entitled to headright grants of not less than 100 nor more than 200 acres on condition of bona fide settlement for at least one year. Practically all of them were for small tracts.<sup>44</sup> The same observation applies to the so-called Tellico lands in southern Kentucky, acquired in 1805 by treaty with the Cherokees.<sup>45</sup> To quiet the claim of Henderson's Transylvania Company in central Kentucky, the Company was granted 200,000 acres in western Kentucky to dispose of at will.<sup>46</sup> The region west of the Tennessee river, later known as the Jackson Purchase, remained in the possession of the Chickasaw Indians until 1818. The Kentucky legislature made provision for rectangular survey into units of 640 acres in general accordance with the Federal practice. The various grants in the area were in terms of 160 acres or multiples thereof, and mainly small holdings.<sup>47</sup> In 1835 the General Assembly of Kentucky granted the remainder of the unoccupied and unreserved public land east and north of the Tennessee river to the counties in which located, to be disposed of by sale on the order of county courts. These constitute the most numerous group of Kentucky land grants, and few of them were for more than 1,000 acres.<sup>48</sup>

The prices charged by Kentucky for land sold were exceedingly low. In 1800 lands for settlement could be bought in units of 400 acres for 20 cents an acre. About 1810 land could be had for 60 cents an acre. Subsequent acts provided

<sup>43</sup> Known as "old Kentucky grants." See Jillson, *Kentucky Land Grants*, 7, 140-255. For a summary of the various Kentucky acts for disposing of land, see Ayres, "Land Titles in Kentucky," in Ky. State Bar Assn., *Proceedings*, 1909, pp. 175-179.

<sup>44</sup> Jillson, *Kentucky Land Grants*, 7, 256-442; *Kentucky Gazette* (Lexington), Feb. 20, 1796.

<sup>45</sup> Jillson, *Kentucky Land Grants*, 9, 443-450.

<sup>46</sup> Ballagh, "Southern Economic History: Tariff and Public Lands," in Amer. Hist. Assn., *Annual Report*, 1898, p. 254.

<sup>47</sup> *Louisville Public Advertiser* (Kentucky), Apr. 20, 1822; Jillson, *Kentucky Land Grants*, 11, 783-891; Treat, *National Land System*, 331.

<sup>48</sup> Jillson, *Kentucky Land Grants*, 12, 952-1844.

for sale prices ranging from 20 cents to as low as 5 cents an acre.<sup>49</sup> Lands were sold on the deferred payment plan, and the credit system was marked by the same unsatisfactory results as in the case of the Federal policy. There was a similar aftermath of arrearages, extension acts, and other relief legislation.<sup>50</sup>

North Carolina's post colonial land policy in Tennessee was inaugurated by the act of 1777, which provided that citizens of that commonwealth might enter any land not granted before July 4, 1776, but not to exceed 640 acres, the unit long established in the land policy of the State. Where the survey fell between the lines of lands already surveyed and laid out for other persons, the limit was 1,000 acres. For a tract of 300 acres total fees amounted to 54 shillings. Any person in the State already claiming more than 640 acres for himself and 100 acres for his wife and for each child was required to pay £5 per hundred acres for lands granted above these amounts. The rapid depreciation of the paper currencies during the next three years stimulated a fever of land speculation. In 1778 a right of preëmption was recognized as established by erecting a house or clearing, enclosing, and cultivating part of the land.<sup>51</sup>

The land act of 1783, after defining carefully the boundary of the Cherokee lands in western North Carolina and eastern Tennessee, provided that lands open to settlement might be purchased at the rate of £10 specie or specie certificates per hundred acres, or the equivalent in State currency, allowing for depreciation at the rate of 800 to 1; but no single warrant was to exceed 5,000 acres. The land office was kept open only about six months, and the act appears to have been of advantage principally to prominent politicians and their associates, who obtained warrants during that period to 4,393,945 acres in different parts of Tennessee, about 2,500,000 acres in west Tennessee in spite of the unextinguished Chickasaw title. One firm of seven prominent North Carolinians had surveys made in west Tennessee for an aggregate of 140,000 acres. By the beginning of the nineteenth century so much of the land in the vicinity of Nashville was held by large speculators that immigrants found difficulty in purchasing or leasing.<sup>52</sup> The State also made generous provisions for military bounties to her soldiers of the Continental Line. Portions of the then Davidson county were reserved for the location of grants.<sup>53</sup> A large proportion of the State, however, was still covered with Indian reservations. After the extinguishment of the Cherokee claim in the western part of what is now North Carolina, the legislature provided for the disposal of the land on a principle of graduation, anticipating by nearly three decades the Federal Graduation Act. Some of the area was granted in large blocks, one of them amounting to a million acres.<sup>54</sup>

<sup>49</sup> *Kentucky Session Laws*, 1800, p. 127; 1819, p. 972; Butler, M., *History of Kentucky*, 260; *Kentucky Statutes* (Littell), V, 266; *ibid.* (Morehead & Brown), II, 991-992, 997; Jillson, *Kentucky Land Grants*, 9.

<sup>50</sup> Emerick, "Credit System and the Public Domain," in *Vanderbilt Southern History Soc., Publications*, No. 3, p. 5; *Kentucky Session Laws*, 1806, pp. 5-11; *Kentucky Statutes* (Littell), V, 5, 37, 42-45, 85-88, 102, 141-144, 310-313, 325, 436, 446. See also below, p. 633.

<sup>51</sup> *North Carolina State Records*, XXIV, 43-48, 160, 214; Boyd, *The Federal Period (History of North Carolina, II)*, 12.

<sup>52</sup> *North Carolina State Records*, XXIV, 479; Williams, S. C., *Beginnings of West Tennessee*, 42-46; Michaux, *Travels*, 244; Arthur, *Western North Carolina*, 131.

<sup>53</sup> *North Carolina State Records*, XVI, 920; XXIV, 419-422; Boyd, *The Federal Period (History of North Carolina, II)*, 12; *Tennessee Laws* (Scott), I, 257-260; Ramsey, *Annals of Tennessee*, 276.

<sup>54</sup> Arthur, *Western North Carolina*, 131-132, 135-142.



After the cession by North Carolina the land situation in Tennessee became most complicated. Practically all the habitable lands to which Indian title had been extinguished were already appropriated. There was a large volume of unsatisfied North Carolina land warrants, and the mother State continued for a number of years to pass acts of extension. After Tennessee entered the Union, there was a strong feeling that the public lands should be subject to State disposition, and petition was sent to Congress to this effect. For a decade, however, the status of unclaimed lands remained indefinite. In 1806 the Federal Government agreed to permit Tennessee to dispose of the public domain within the State north and east of a certain compromise line, but under certain stipulated conditions. Consequently, as tribal claims were successively extinguished, the State found itself charged with the disposal of considerable areas, but still subject to the great volume of North Carolina grants not yet located. Tennessee also received grants for education amounting to about 3,500,000 acres, far more than the educational grants to any other State.<sup>55</sup>

The legislature provided in 1796 that squatters south of French Broad having claims based on occupancy should be entitled to all rights appertaining to ownership of a homestead. The act of 1806 adopted the plan of a rectangular survey, setting aside one section in each township for schools and making provision for various outstanding claims. Holders of preëemption rights might receive not to exceed 640 acres at the rate of \$1 per acre. Credit was allowed on the plan of equal annual payments over a period of ten years, but these and subsequent credit arrangements appear to have turned out badly and to have caused an endless amount of annoyance. By the terms of the agreement with Congress, other lands must be sold at not less than the rate charged elsewhere for public lands, a limitation finally removed in 1823.<sup>56</sup> In 1819 provision was made for disposal of lands in east Tennessee recently acquired from the Cherokees. The area was to be laid out in townships six miles square, then advertised and sold to the highest bidder for one fourth down and the remainder payable in ten years. A minimum price of \$2 an acre was specified. Not more than 640 acres was to be allowed one person, with the addition of 320 acres for each child.<sup>57</sup> By 1833 the remaining State-owned lands consisted mainly of certain territory in east Tennessee to which the Cherokee title had not yet been extinguished.<sup>58</sup>

The area west and southwest of the Tennessee and Duck rivers and of a north and south line from Duck River to the point where Elk River crosses the southern boundary line was reserved by Congress in the agreement of 1806, except that in case the lands north and east of that boundary proved insufficient to satisfy North Carolina claims under the act of cession, the remaining claims might be located west of the boundary. This residual obligation stopped Congress from disposing of the lands after extinction of Indian title. In 1812 North Carolina proceeded to make surveys and issue grants within the reserve. Tennessee

<sup>55</sup> Treat, *National Land System*, 345, 347-349; Hibbard, *Public Land Policies*, 312, 338. See below, p. 635.

<sup>56</sup> *Tennessee Laws* (Scott), I, 352, 539, 915; Treat, *National Land System*, 351-352; Emerick, "Credit System and the Public Domain," in Vanderbilt Southern History Soc., *Publications*, No. 3, p. 4.

<sup>57</sup> *Tennessee Laws* (Scott), II, 508-515.

<sup>58</sup> Tennessee, *House Journal*, 20th Assembly, 1833, p. 357.

passed an act the same year forbidding such surveys, and asked permission of Congress to act as agent in perfecting the grants obtained from North Carolina in 1812, if valid. In 1818 this was authorized. Although Tennessee had surveyed the region into tracts five miles square, the old irregular pick-and-choose method of locating claims was pursued. By 1829 it was reported that unappropriated land in the reserve was principally of low quality, probably not worth over 12½ cents an acre. Finally, in 1841, Congress made Tennessee its agent for the disposal of the remainder and five years later transferred title of the remaining lands to the State.<sup>59</sup> In 1837 Tennessee had recognized the preëemption right of actual occupants of the reserve for 200 acres each, granting them a limited period to make entry and perfect their titles. Under the arrangement of 1841 Tennessee undertook to perfect the remaining North Carolina warrants. The following year the legislature provided that persons entitled to preëemption for occupancy rights under the laws of Tennessee be allowed 200 acres at 12½ cents an acre. Holders of unlocated warrants were given one year to make entry but were not allowed to assert claims to land subject to preëemption rights. Unappropriated lands were offered for three years at 12½ cents an acre, and for the next three years at any price obtainable at public sale.<sup>60</sup>

Thus, the lands of Tennessee were never brought under the Federal land system, and much the larger part of the State was disposed of under the liberal, unsystematic, and inefficient provisions of the North Carolina acts of 1777 and 1783, which included no adequate restrictions on the acquisition of large holdings.

#### LAND POLICIES OF SOUTH CAROLINA AND GEORGIA

South Carolina ceded its western lands so soon after the close of the Revolution that its policy had but little influence on transmontane expansion. After the close of the Revolutionary War provision was made for the sale of lands west of the old Cherokee boundary at £10 sterling per hundred acres. A year later the price was lowered to \$10 per hundred. In 1794, however, because by reason of the "spirit of speculation and land jobbing . . . many persons, greedy of gain . . . have obtained, and still continue to obtain, large and excessive grants of land," it was provided that during the next four years no one person was to receive more than one grant, not exceeding 500 acres.<sup>61</sup>

Georgia claimed practically all the territory south of a zone twelve miles wide along the southern border of North Carolina and Tennessee. Hence most of the southwestern territory east of the Mississippi was under her control. Since most of this region was subject to unextinguished tribal claims, comparatively little outside the present borders of Georgia was distributed before the cession of 1801 to the Federal Government. At the close of the Revolution much of the present area of Georgia was covered by Indian claims, but a series of Indian treaties between 1783 and 1796 opened up a large part of central Georgia to private appropriation.<sup>62</sup>

<sup>59</sup> Treat, *National Land System*, 350-354; Williams, S. C., *Beginnings of West Tennessee*, 99-102, 109-112.

<sup>60</sup> *Tennessee Statutes* (Nicholson), 196-208, 211.

<sup>61</sup> *South Carolina Statutes* (Cooper), IV, 590, 707; V, 38-40, 233-235.

<sup>62</sup> *Georgia Laws* (Marbury & Crawford), 601-637. Cf. map of the cessions, in Phillips, U. B., *Georgia and State Rights*, facing p. 40.

During the last quarter of the eighteenth century there was a good deal of variation in the land policies developed by Georgia. In 1777 the State passed a general act for the disposition of her public land. Every white person who was head of a family was to be entitled to 200 acres with an additional 50 acres for each other white member of his family and for each Negro, not to exceed ten in number. Within six months the grantee was required to "settle, plant, cultivate, and live on" the grant. Squatters on unallotted lands were given a preëmption right. Supplementary legislation of 1780 required that entrymen who were nonresidents of the State must first remove their families to the State, take the oath of citizenship, and give security for settlement within nine months thereafter.<sup>63</sup> In 1783 a new land act was passed which differed notably in principle from the earlier legislation. While still allowing each head of a family a homestead of 200 acres, provision was made for selling the other headrights on the principle of a progressive increase in price in proportion to the number of headrights in the family, starting with 1 shilling per acre for the first 100 acres and increasing by 6 pence per acre for each additional 100 acres up to a total of 1,000 acres. The grantee must live on and cultivate part of his grant for at least twelve months, and clear and cultivate at least 3 acres for each 100 acres.<sup>64</sup> This legislation was obviously designed to discourage large plantations. In 1784, when Franklin and Washington counties were laid out, the homestead and head-right principles were omitted, and applicants permitted to purchase land at 3 shillings in specie per acre, one half payable within two years and the remainder within three years. This act was repealed the following year.<sup>65</sup>

In 1803 Georgia adopted a lottery method of distribution for lands recently ceded by the Creeks, which were to be laid off in three counties, Wayne, Wilkinson, and Baldwin. The tracts in Wayne County were to contain 490 acres each, and those in the other two counties 202½ acres. Persons entitled to draw were defined as free white males, twenty-one years of age or over, having resided in the State for the preceding twelve months. If married and with one or more children under twenty-one the applicant was entitled to two draws. Widows having one or more children under twenty-one were entitled to two draws, and families of orphans with no parents living, to one draw. Persons successful in the lottery were required to pay small fees and also prices graduated according to quality of land drawn, ranging from \$1 an acre for river land of first quality down to 6¼ cents per acre for pine land, payable in instalments during six years. A few months later a flat payment of \$4 per hundred acres was substituted for purchase price and fee.<sup>66</sup>

The delightful uncertainty in this method of distributing land appears to have made the system sufficiently popular to lead to its application to areas acquired from time to time through Indian cessions, though with minor variations in detail.<sup>67</sup>

<sup>63</sup> *Georgia Laws* (Marbury & Crawford), 316-319, 321.

<sup>64</sup> *Ibid.*, 323-327.

<sup>65</sup> *Ibid.*, 330-733

<sup>66</sup> *Ibid.* (Clayton), 100-106, 120, 131, 339, 405.

<sup>67</sup> *Ibid.*, 290-295, 338; *ibid.* (Lamar), 416-425. For extension to additional area, see *ibid.*, 429-433; *ibid.* (Dawson), 246, 253-258, 261, 269; *ibid.* (Prince, 1837), pp. 283, 563, 565-567.

## CREATION OF A FEDERAL PUBLIC DOMAIN IN THE SOUTH

The claims of the various commonwealths to Western lands after the Revolution were not regarded with approval by the six States having no such special claims, and even by some citizens of the States with special claims.<sup>68</sup> Maryland took the lead in pressing for relinquishment in favor of the Confederation. After much agitation and bargaining the respective cessions were accomplished between the years 1781 and 1802. The area relinquished by Southern commonwealths comprised 176,758 square miles south of the Ohio river.<sup>69</sup> The public domain in the South was subsequently increased by the purchase of Florida and by that part of the Louisiana Purchase included in Louisiana, Arkansas, and Missouri.

Virginia took the initiative in 1784, but, as already noted, her cessions south of the Ohio were so affected by reservations for military bounties or were subject to such numerous grants already made that the national land system was virtually excluded from the territory.<sup>70</sup> The North Carolina cession of 1790 also was hedged about with so many reservations that the territory was brought under the national land system in name rather than in fact.<sup>71</sup> Virtually the only portion of the Southern States, therefore, to which the national system of distribution came to apply as a result of the cessions was the territory ceded by South Carolina and Georgia. In 1787 the former State ceded a claim, which had been the subject of an acrimonious dispute with Georgia, to a narrow strip extending along the southern border of Tennessee to the Mississippi, without conditions. Georgia delayed action until 1802, finally stipulating that the provisions of the Ordinance of 1787, except the clause prohibiting slavery, should be extended to the territory ceded, and requiring a payment of \$1,250,000 out of the first net proceeds from the sale of public lands. The United States also ceded to Georgia a narrow strip along her northern border formerly included in the South Carolina cession. All legitimate foreign claims based on grants by the governments of Spain and of West Florida were to be recognized and also the lands granted under the Georgia act of 1785 providing for territory south of Yazoo River. The United States was to assume responsibility for the satisfaction of other claims up to a total of 5,000,000 acres.<sup>72</sup>

Large portions of the ceded areas were subject to claims of one kind or another in addition to tribal rights, practically all of which were subsequently extinguished. In 1789 Georgia had granted upwards of 25,000,000 acres west of Alabama River to three land companies in consideration of an agreed payment of \$207,580, but the grant subsequently lapsed through nonpayment. The second Yazoo sale, made in 1795 to four land companies, comprised upwards

<sup>68</sup> Jones, J., *Letters*, 15-18, 29, 32-34; *Bland Papers* (Campbell), II, 128-130; *Gazette of the State of South Carolina* (Charleston), Nov. 15, 1784.

<sup>69</sup> Adams, H. B., *Maryland's Influence upon Land Cessions*, 22-54; Donaldson, *Public Domain*, 11, 163; cf. Sato, *Land Question in the United States*, 40.

<sup>70</sup> Treat, *National Land System*, 328, 339; Hibbard, *Public Land Policies*, 122.

<sup>71</sup> In regard to the abortive cession of 1784 and the final cession of 1790, see Boyd, *The Federal Period (History of North Carolina)*, II, 12-14; *North Carolina State Records*, XVI, 888; XXV, 4-6; Treat, *National Land System*, 341-345; Hibbard, *Public Land Policies*, 11.

<sup>72</sup> Treat, *National Land System*, 12, 359-361. Concerning the South Carolina dispute with Georgia over western land claims, ultimately ceded to the Union, see Cotterill, "The South Carolina Land Cession," in *Mississippi Valley Historical Review*, XII, 376-384.

of 35,000,000 acres in what is now Alabama and Mississippi. It was granted for the insignificant price of \$500,000. The grant savoured so strongly of fraud that public indignation was aroused, and the grant was rescinded by the next legislature. Nevertheless, these vague claims were later revived, and for many years Congress was importuned to settle them. Finally provision was made in 1814 for a money settlement of \$5,000,000 on condition that further claims be released. In terms of cession Congress confirmed the preëmption rights of settlers in Tennessee and Georgia, and since no land was placed on sale by the Federal Government for three years after the Georgia cession, it was found expedient in 1808 to grant preëmption rights also to squatters who had settled from 1803 to 1806.<sup>73</sup>

Valid land claims acquired under foreign governments, which the United States had agreed by treaty to recognize, applied to large areas in the territory ceded by the older commonwealths, as well as in Florida and the Louisiana Purchase. They involved a vast amount of uncertainty and confusion from defective records and overlapping grants, and tended to delay Federal distribution of land.<sup>74</sup> Private land claims founded on grants made prior to the acquisition of territory by the Federal Government, confirmed up to June 30, 1904, in acres, were as follows:<sup>75</sup>

Alabama.....	251,602	Louisiana.....	4,347,891
Arkansas.....	110,090	Mississippi.....	773,087
Florida.....	2,711,290	Missouri.....	1,130,051

Professor Ballagh estimates that after excluding lands in Kentucky, Tennessee, and Texas not brought under Federal distribution and after excluding the area allowed under foreign claims, as well as the area undistributed as late as 1880, there remained to be distributed by the national land office about 103,000,000 acres in the entire South, including Texas and Missouri.<sup>76</sup>

#### FEDERAL LAND POLICIES

The character and operation of Federal land policies have been so frequently described that a brief summary, with special reference to the South, is sufficient. Allodial tenure was adopted, and land was granted with practically no limitations except such as forbade the rule of primogeniture in intestacy or the entailing of estates for more than one generation.<sup>77</sup> Fortunately, the New England system of priority of survey and the policy of granting a deed directly to a single entryman

<sup>73</sup> For short summaries of these transactions, see Treat, *National Land System*, 356-359, 362-366, 384; Hibbard, *Public Land Policies*, 213; Garland, *John Randolph of Roanoke*, I, 66. For more detailed accounts, see Haskins, "Yazoo Land Companies," in Amer. Hist. Assn., *Papers*, V, 61-103; Phillips, U. B., *Georgia and State Rights*, 29-37.

<sup>74</sup> Donaldson, *Public Domain*, 83, 86; Treat, *National Land System*, Chap. IX; Claiborne, J., *Houmas Land Claim*, 3-6, 8; Mississippi, Agricultural and Geological Survey, *Report* (Wailes, 1854), p. 120; *Alabama Republican* (Huntsville), July 6, 1821; *Cahawba Press and Alabama State Intelligencer*, Apr. 27, 1822; cf. especially, Violette, "Spanish Land Claims in Missouri," in Washington University, *Studies*, VIII, *Humanistic Series*, 168-177.

<sup>75</sup> Hibbard, *Public Land Policies*, 29.

<sup>76</sup> Ballagh, "Southern Economic History: Tariff and Public Lands," in Amer. Hist. Assn., *Annual Report*, 1898, pp. 252, 256.

<sup>77</sup> Donaldson, *Public Domain*, 153-163.

were incorporated in the national land system, rather than the Southern system of warrants and entries, followed by surveys, caveats, and patents. On the other hand, the forces of squatterism and indiscriminate settlement, characteristic of Southern land policies, were too strong to be resisted; therefore the New England policy of complete disposition of compact areas was not effectually realized. In 1785 the now familiar rectangular system of survey, previously more or less employed in New England and occasionally in the South, was adopted for a limited territory. More than a decade elapsed, however, before these various principles were definitely established elements in the national land policy.<sup>78</sup>

The earlier policy of alienation was sale at public auction with a view to obtaining a maximum of revenue. By the Ordinance of 1785 a part of the land was to be sold by townships and a part by sections, the minimum price being fixed at \$1 per acre. By the Ordinance of 1787 the same method of sale was continued, except that the important element of credit was introduced. Prices of lands at this time ranged from 66 $\frac{2}{3}$  to 75 cents an acre, and most of it was sold to large companies, except 200,000 acres purchased by Pennsylvania.<sup>79</sup> Under the land policy of the Confederation, however, but little Federal land was disposed of in the South.

Subsequent Federal legislation was more and more designed to facilitate settlement, although the revenue motive was only gradually abandoned. There was a continual discussion of the relative desirability of sale in large, as compared with small, amounts; the former being more favorable to large speculators while pioneer interests favored smaller units. During the ante bellum period no maximum limitation was placed on amounts purchasable by an individual, but the minimum area was gradually reduced, from a section to a half section, then to a quarter section, and finally to forty acres.<sup>80</sup>

The question of minimum price was also one of sharp controversy. Those favoring the revenue principle tended to prefer a high minimum price, and they were supported by persons in the older States who suffered from the competition of newer areas. Pioneers, of course, were anxious for a low minimum price. Although the policy of selling to the highest bidder was maintained, with a gradual inclination to recognize preëmption rights, there was a tendency, particularly after 1820, for the average price to approximate the minimum. In especially desirable districts, of course, competition often forced the price much above it.<sup>81</sup> The minimum was fixed in 1796 at \$2 per acre, slightly reduced by discounts for cash. In 1820 the price was lowered to \$1.25 per acre, and so continued. There were times, especially in the earlier part of the century, when the minimum was above the prices of lands offered by individual States, and therefore Federal lands moved slowly.<sup>82</sup>

<sup>78</sup> Ford, A. C., *Colonial Precedents of Our National Land System*, especially Chaps. I-IV; Treat, *National Land System*, Chap. II; Hibbard, *Public Land Policies*, 37-41.

<sup>79</sup> *Ibid.*, Chap. III; Sato, *Land Question in the United States*, 143, 161; Donaldson, *Public Domain*, 197.

<sup>80</sup> Hibbard, *Public Land Policies*, 67, 71, 75.

<sup>81</sup> *Ibid.*, 101-107.

<sup>82</sup> *Ibid.*, 58-61, 67, 71, 74, 101.

Low as the minimum may appear, it frequently involved obligations difficult for the pioneer to meet. This fact was revealed in the operation of the policy of sale on the instalment plan. In 1800 it was provided that three fourths of the purchase price might be paid in two equal instalments biennially over a period of four years, with interest from date of sale at 6 per cent, subject to discounts for prompt payment.<sup>83</sup> The credit system was one of a number of conditions contributory to an orgy of land speculation, particularly in the years following the War of 1812, culminating in the crisis of 1819. Lands were purchased with reckless disregard of means of payment. The frenzy reached its greatest extreme in Alabama and Mississippi. Nearly four million acres were disposed of on credit in the former State, and a million each in Mississippi and Missouri.<sup>84</sup> The system soon showed disastrous results. The total amount of arrearage became so large that the Government was forced to pass a series of relief acts providing for remission of interest, extension of payments, and reversion to the Government of part of the area in proportion to amount of unpaid indebtedness. Although the system was abolished in 1820, the resulting ill consequences were manifest for many years thereafter, necessitating continued relief measures.<sup>85</sup>

The conditions for the sale of land in the ante bellum period, especially before 1820—the possibility of purchasing land in almost unlimited quantities, the high minimum limits of purchase, and the competitive methods of purchase—were more favorable to a capitalistic agriculture than to a system of small, self-sufficing farming. Before the passage of the Preëemption Act squatters, many of whom were farmers who had occupied public lands in advance of sale, were liable to be subsequently displaced as a result of the higher bids of wealthy planters. Governor Claiborne, of Mississippi Territory, wrote James Madison in 1802:<sup>86</sup>

“It will not escape your observation, that a great proportion of the present population in this Territory, is composed of Citizens who have formed settlements on vacant lands;—the heads of families of this description, in the Counties of Jefferson, Adams, Wilkinson, and Claiborne, exceed seven hundred and their wives and children amount to upwards of two thousand.”

The writer expressed the hope that these worthy persons would be secured in their holdings against the greed of speculators and large planters. In 1829 memorials were sent to Congress from the Alabama legislature, deprecating the auction method of selling public lands as “a weapon of oppression in the hands of, and in every instance wielded by, speculators and frequently to the utter ruin of the honest planters.” In 1835 it was declared that in middle Florida practically all the worth-while land had been entered, but speculators held large blocks at \$10 an acre.<sup>87</sup>

<sup>83</sup> *Ibid.*, 68, 76, 81–84.

<sup>84</sup> Donaldson, *Public Domain*, 198–203; Hibbard, *Public Land Policies*, 89.

<sup>85</sup> Emerick, “Credit System and the Public Domain,” in Vanderbilt Southern History Soc., *Publications*, No. 3, pp. 10–15; Hibbard, *Public Land Policies*, 92–98; Sato, *Land Question in the United States*, 145–150; Donaldson, *Public Domain*, 205.

<sup>86</sup> Claiborne, W. C. C., *Executive Journal* (Mississippi Territorial Archives, I, Pt. II), 543; cf. Treat, *National Land System*, 381–383.

<sup>87</sup> *Alabama Session Laws*, 1829, p. 95; Hibbard, *Public Land Policies*, 214; *Farmers' Register*, III, 516.

The pressure of pioneer interests gradually compelled the adoption of the pre-emption policy as well as the other modifications in selling policy already noted. For a number of years there were occasional official attempts to eject and punish squatters, but for the most part they were interlopers only as a legal fiction. The tendency was for officials to accept the facts of occupancy and improvement, however irregularly and informally accomplished. From 1801 to 1841 eighteen special preemption acts were passed recognizing claims of squatters in various parts of the public domain. In 1830 a general preemption act for one year was passed, and renewed for a year in 1834. In 1841 the policy was made a permanent part of the land system. The right was accorded to male settlers over twenty-one years or to widows, who must be citizens of the United States or have declared their intention, and who must not own more than 320 acres in addition to the 160 preëmpted.<sup>88</sup>

The Graduation Act of 1854 added a new principle, providing for reductions in minimum prices of lands that had remained unsold for certain periods of time. Prices ranged from \$1 to as low as 12½ cents an acre, according to length of time the land had remained unsold. Much of the low priced land was infertile or required expensive reclamation; but in many cases land had continued undesirable on account of physical isolation, and the building of railroads largely removed this disadvantage. It is estimated that in six Southern States there were over 64,000,000 acres subject to the provisions of this act, under which more than 25,000,000 acres were sold in the entire country prior to 1862.<sup>89</sup>

The capsheaf of liberal tendencies was the Homestead Act, which conferred upon actual settlers virtually free title to 160 acres. Although not passed until 1862, the act was the culmination of several decades of agitation. It had been preceded in 1842 by a special homestead act applicable to portions of Florida, which, however, resembled in purpose a bounty act more than a true homestead act.<sup>90</sup>

Military bounties, widely employed in State land policies, became also an important element in Federal policy. Bounties were promised by Congress during the Revolutionary War at a time when the Confederation had no land. During the War of 1812 bounty offers were limited to privates and noncommissioned officers between eighteen and forty-five years of age. Mexican War bounties were offered to men of all ranks. Prior to 1850 military bounties had been offered mainly as inducements for enlistment, but in that year and succeeding years bounty acts resembling pensions for previous service were passed. The scale of generosity was greatly enlarged, and whereas the earlier military bounties had been nontransferable, the later legislation abandoned this principle. The act of 1847 permitted commutation at a certain rate, the proceeds being made applicable to payment for other public lands; while the act of 1852

<sup>88</sup> Hibbard, *Public Land Policies*, Chaps. IX, XI, & p. 313; Sato, *Land Question in the United States*, 160-164; Donaldson, *Public Domain*, 214-216; Stephenson, G. M., *Political History of Public Lands*, 98-100.

<sup>89</sup> Donaldson, *Public Domain*, 291; Hibbard, *Public Land Policies*, 288-301.

<sup>90</sup> *Ibid.*, 383-385; Stephenson, G. M., *Political History of Public Lands*, 115.



definitely permitted transfer of the claim to another party. These later acts greatly stimulated speculation, during the decade just preceding the Civil War.<sup>91</sup>

At various times there were attempts to secure cession of public lands to States in which located. While complete distribution was never achieved, in various ways the newer States of the Southwest acquired large areas from the Federal domain. A policy begun with the admission of Louisiana in 1811 granted to each State at time of admission a small percentage of receipts of public lands within the State for encouragement of road and canal building. The Distribution Act of 1841, in order to encourage internal improvements, provided for the cession of 500,000 acres to each State containing public lands. The land must be sold at not less than \$1.25 per acre. The acts providing for the cession of swamp and overflow lands, passed in 1849 and 1850, also granted large areas, especially to Florida and to States bordering the Mississippi. Though nominally intended as a means of subsidizing reclamation, the results in this regard were negligible.<sup>92</sup> The reservation of the sixteenth section in each township for educational pur-

TABLE 18.—*Land cessions to Southern States made by the Federal Government prior to June 30, 1880<sup>1</sup>*

States	Saline	Swamp land grants	Common school grants	University grants	Railway land grants	"State selections" in aid of internal improvements
	<i>acres</i>	<i>acres</i>	<i>acres</i>	<i>acres</i>	<i>acres</i>	<i>acres</i>
Alabama.....	23,040	395,315	902,774	46,080	2,830,572	97,469
Arkansas.....	46,080	7,130,115	886,460	46,080	1,793,167	500,000
Florida.....		14,500,852	908,503	92,160	1,760,468	484,184
Louisiana.....		8,291,312	786,044	46,080	1,072,405	500,000
Mississippi.....		2,681,383	837,584	46,080	737,130	500,000
Missouri.....	46,080	3,278,108	1,199,139	46,080	1,828,005	500,000
Total by grants.....	115,200	36,277,085	5,520,504	322,560	10,021,747	2,581,653

<sup>1</sup> Donaldson, *Public Domain*, 218, 222, 228, 255, 269-272. All of the land transferred under the educational grants and the greater part of the land acquired by the States under the swamp land and railway grants passed from the possession of the Federal Government before 1860. The figures for railway lands include only those acquired under grants made prior to 1860.

poses in States admitted prior to 1848, except Kentucky and Tennessee; grants of two townships in each State for the support of universities; certain special saline grants; and various railway land grants gave the States title to millions of acres. (Table 18.) Railway grants, however, were not begun until 1850, and the greater part came just before the Civil War.<sup>93</sup>

#### POLICIES OF THE SOUTHWESTERN STATES IN DISPOSING OF FEDERAL LAND GRANTS

For the most part, the newer States followed a policy of selling the lands received from the Federal Government. An exception was the Mississippi act

<sup>91</sup> Hibbard, *Public Land Policies*, Chap. VII; Stephenson, G. M., *Political History of Public Lands*, 101.

<sup>92</sup> Donaldson, *Public Domain*, 219; cf. Hibbard, *Public Land Policies*, 84, 187, 190, 228-232, 269, 273.

<sup>93</sup> *Ibid.*, 240-246, 264-265, 318; Sanborn, *Congressional Grants of Land in Aid of Railways*, especially pp. 76-78, 111-114.

of 1848, which provided for leasing school lands in the Chickasaw cession, granted by Congress in 1841. In consideration of an initial payment of not less than \$6 an acre the act permitted leases for ninety-nine years, renewable to the heirs and assigns forever. In the same year Mississippi provided for sale of 500,000 acres granted to the State to encourage internal improvements. The land was offered by quarter sections at a minimum price of \$6 an acre, all remaining unsold to be subject to private entry at that price. Preemption was allowed for a quarter section at \$2.50 per acre.<sup>94</sup> In 1828 Alabama provided for sale of certain relinquished lands in the northern part of the State in three classes according to quality, at minimum prices ranging from \$1.25 to \$6 per acre. Affidavit was required that the lands were not purchased for speculation. Similar provisions were applied to sale of lands reserved for improvement of the Tennessee and other rivers. By act of 1837 school lands were leased to the highest bidder for a period not exceeding five years, but later were sold.<sup>95</sup> In 1852 Mississippi provided for the sale of swamp lands at auction by quarter sections for not less than \$2 an acre. Several years later much of the land was disposed of by the issue of land scrip, as well as by direct sale by county boards for levee funds. Mississippi recognized preemption rights to swamp lands at a minimum price of 50 cents an acre, but in certain counties the minimum was reduced to 25 cents an acre. Provision was made by a system of special taxes and subsidies to promote drainage.<sup>96</sup> Although Florida received the largest grant of swamp lands no serious attempt was made to promote drainage before 1881, nor by Alabama until 1860.<sup>97</sup>

The vast area now comprised in Texas was disposed of by Mexico, by the Republic of Texas, and by the State of Texas,—the largest part by the latter,—amounting by 1910 to a total of 140,656,280 acres.<sup>98</sup>

The Spanish land policy furnished the characteristic methods of transferring land to private individuals, methods that resembled in many respects those employed by Southern Colonies. Land scrip was issued designating a certain amount of land to be located by private surveys upon any portion of the public domain not yet disposed of.<sup>99</sup> Prior to the Mexican Revolution land in Texas had been granted to settlers who would undertake its improvement, a large proportion only on the basis of use tenure. After the Mexican Revolution the new Government adopted the *empresario* policy, already foreshadowed during the Spanish régime by the contract with Moses Austin. The *empresario*, or contractor, undertook to bring in a group of colonists numbering not less than 100 families. He was authorized to offer families undertaking to cultivate the soil one *labor* (177 acres), and an additional 4,251 acres of grazing land to those undertaking to raise stock, making a square league, or *sitio*. Single men were

<sup>94</sup> *Mississippi Session Laws*, 1848, pp. 59–62.

<sup>95</sup> *Alabama Session Laws*, 1826, pp. 3–10; 1830, p. 12; 1837, p. 81; 1857–58, p. 11.

<sup>96</sup> Wade, "Lands of the Liquidating Levee Board, etc.," in *Miss. Hist. Soc., Publications*, IX, 275–277; *Mississippi Session Laws*, 1850, p. 180; 1857, pp. 51, 87, 98–99, 102.

<sup>97</sup> Palmer, *Swamp Land Drainage, with Special Reference to Minnesota*, 18–22; *Alabama Session Laws*, 1859–1860, pp. 117–119.

<sup>98</sup> McKittrick, *Public Land System of Texas*, 8.

<sup>99</sup> Hill, *Present Knowledge of Geology of Texas* (U. S., Geological Survey, *Bulletin* 45), p. 29.

entitled to only one fourth as much as a family, but on marriage the area could be increased to the full allotment for a family. In return for his services, each *empresario* was allowed 5 *sitios* of grazing land and 5 *labors* of arable land, of which not more than one half should be irrigable, for each 100 families settled by him. The land law of 1824 prohibited any one from owning more than 1 *sitio* of land suitable for irrigation, 4 *sitios* of nonirrigable arable land, and 6 *sitios* of grazing land. The Homestead Exemption Law of 1829 made the land of colonists and *empresarios* exempt from seizure for debts contracted prior to the acquisition of the land, a policy which continued to be characteristic of the later land law of Texas. All in all, only a little more than 25,500,000 acres was transferred to private ownership before Texas became independent.<sup>100</sup>

Development of the Texas land policy after independence was largely influenced by United States policies. The Republic provided in its constitution that every citizen residing in the commonwealth on March 2, 1836, who was head of a family, should be entitled to one league and one *labor*. Single male citizens over seventeen years of age were allowed one third of a league. Shortly after the adoption of the constitution a general land law provided that subsequent immigrants might receive conditional grants of 1,280 acres to each head of a family or 640 acres to a single man. Full title might be obtained by residing in the Republic three years and conforming to the requirements of citizenship. Pre-emption rights were provided for settlers who had made improvements on land to which they had no title. A subsequent act passed prior to the admission of Texas to the Union reduced amounts granted to 640 acres per family and 320 acres for single men, requiring cultivation of at least 10 acres.<sup>101</sup>

Texas experimented for a number of years with the *empresario* system, allowing each contractor a premium of 10 sections for each hundred families, reserving alternate sections for the Republic. He was required to furnish each colonist a gun and ammunition, to survey the land at the colonist's expense, and might also pay the colonist's expenses in moving to Texas, taking in payment not more than one half of the colonist's land grant, which was to be the same amount provided for immigrants not under the contract system.<sup>102</sup>

In 1845 Texas adopted a system of preëemption sales, not to exceed 320 acres for each settler. When the preëemptor or his assignee had completed three years' residence, he could obtain patent on payment of about 50 cents an acre and certain fees. This system, with minor modifications, continued in effect until 1889, except for a short interval from February 13, 1854 to February 10, 1858.<sup>103</sup>

In 1838 a homestead law was passed to encourage settlement along a military road. The scope of the law was enlarged in 1845, and a more general law passed in 1854. The usual maximum allowed was 160 acres, on the basis of occupancy, ordinarily for three years. Generous military land bounties were also granted.<sup>104</sup>

In the earlier years, by reason of financial exigency, Texas issued transferable

<sup>100</sup> McKittrick, *Public Land System of Texas*, 27-37.

<sup>101</sup> *Ibid.*, 42-44.

<sup>102</sup> *Ibid.*, 45.

<sup>103</sup> *Ibid.*, 49.

<sup>104</sup> *Ibid.*, 50-52, 76-78.

land scrip in considerable quantities. The Texas scrip, like that issued by the Federal Government, became the object of intense speculation.<sup>105</sup>

The total area disposed of by the Republic of Texas under headright grants and certificates of military service was 36,876,492 acres; under *empresario* contracts 4,494,806 acres; and under preëmption claims and homestead donations 4,847,136 acres, a large proportion of the latter after the Civil War. Land grants to veterans of the Texas Revolution amounted to 1,169,382 acres.<sup>106</sup> Much larger quantities were accounted for by grants for railways and other internal improvements, and by reservations for public education. Large conditional grants were made to railways in the fifties, but little land actually passed under these grants prior to the Civil War.<sup>107</sup> In 1845 school lands were made subject to lease for a period of twenty years. Consequently, but little of this land passed into private ownership during the ante bellum period.<sup>108</sup>

#### GENERAL CONSEQUENCES OF POST COLONIAL LAND POLICIES IN THE SOUTH

The policies, State and Federal, outlined above affected different parts of the South in various ways. The abolition of quitrents and of primogeniture and entail in the older Colonies and the omission of these practices from the policies followed in the newer States made possible a far greater degree of commercialism, a greater mobility in the land market, and a freer use of land as a basis of credit. Hence, the plantation system tended to be more and more a commercial and speculative, and less an aristocratic, institution. Speculation was further favored by State policies of disposition, particularly those of Virginia and North Carolina, and by Federal policies. State and Federal policies resulted in the concentration of large areas in the hands of speculators.

While land speculation was more or less continuously prevalent, there were four periods when speculative waves reached their crests.<sup>109</sup> The first of these followed the close of the Revolutionary War and continued until about the beginning of the nineteenth century. It was intensified by the buoyancy and enthusiasm engendered by the winning of independence, by the influence of depreciated currency, and by the military bounties, low sale prices, and easy credit terms granted by Virginia and North Carolina. It was in this period that the great Revolutionary financier, Robert Morris, was lured into the frenzy of speculation, and after acquiring as much as 6,000,000 acres, ended in a debtors' prison.<sup>110</sup> A contemporary Irish traveller in the United States declared:<sup>111</sup>

<sup>105</sup> McKittrick, *Public Land System of Texas*, 79-83; cf. Garrison, *History of Texas*, 235-237 & Chap. XVIII nn.

<sup>106</sup> McKittrick, *Public Land System of Texas*, 158.

<sup>107</sup> *Ibid.*, Chap. III, 158.

<sup>108</sup> *Ibid.*, 92.

<sup>109</sup> Cf. particularly the interesting curves showing annual receipts from Federal lands, 1816-1860, in Cole, "Cyclical and Sectional Variations in the Sale of Public Lands," in *Review of Economic Statistics*, IX, 45.

<sup>110</sup> Homes, *Description and Analysis of the Unpublished Manuscripts of Robert Morris*, 14; Roosevelt, *Gouverneur Morris*, 207; *Gazette of the State of South Carolina* (Charleston), June 24, 1784; McRee, *James Iredell*, II, 58; cf. Hibbard, *Public Land Policies*, 209.

<sup>111</sup> Hull, *Remarks on the United States*, 19.

"The great article of trade and speculation has been land. Scarcely do you meet with a man, in the country, who has not more or less to dispose of. Immense fortunes have been acquired, by individuals, from purchasing large tracts and retailing them in small portions; and, long credits being given, numbers have been tempted to speculate."

The next great land speculation followed the close of the War of 1812 and terminated with the panic of 1819, a product of wildcat banking and, as already noted, of the credit system in the sale of public lands.<sup>112</sup> The third speculative craze in the years preceding the crisis of 1837 resulted from the easier Federal policies of sale and the retirement of Indian claims to large areas in the Southwest, as well as from general credit and economic conditions favoring a speculative movement. The fourth period of excessive land speculation began in 1852 and reached a peak in 1855. Federal land policies directly contributed to it, especially the Graduated Land Act, swamp land grants, railway grants, and extensive military bounties, made transferable in 1852.<sup>113</sup> Professor Arthur H. Cole has demonstrated a close cyclical relationship between curves showing movement of general commodity prices and receipts from sales of Federal land by quarters from 1825 to 1845. There is a slight lag in movement of prices as compared to land sales, and the peaks of land sales preceded the breaks from the peaks of general prices by one to nearly two years.<sup>114</sup>

The conclusion with respect to the influence of land policies on the development of the plantation system in the colonial period applies also in the post colonial period.<sup>115</sup> State and Federal policies were favorable to the expansion of the plantation system, but the development of the system was dependent on other conditions than easy acquisition of large areas. This is shown by the failure of the system to develop in the Northwest, where similar Federal policies were employed, or even in certain parts of the South. On the other hand, while Federal and State land policies in the South contained provisions making land available to the small freeholder on fairly easy terms, this fact in itself did not enable this type of rural economy to exclude the plantation system in areas where other conditions favored the latter.

Because of divergencies in economic conditions the interests of different parts of the South with regard to land policy were by no means identical. In both South and North there was a line of cleavage between old settled regions and frontier regions. In general, the older regions, suffering from rapid settlement of Western lands, emigration, and increased competition for their products, were inclined to oppose small units of sale, low minimum acreages, and preëmption; and to prefer sale in large units at prices calculated to yield a maximum return.<sup>116</sup> About 1830, however, the attitude of the older States north of Mason and Dixon's

<sup>112</sup> Emerick, "Credit System and the Public Domain," in Vanderbilt Southern History Soc., *Publications*, No. 3, pp. 8-11; Hibbard, *Public Land Policies*, 79, 212.

<sup>113</sup> *Ibid.*, 215-224.

<sup>114</sup> "Cyclical and Sectional Variations in the Sale of Public Lands," in *Review of Economic Statistics*, IX, 45.

<sup>115</sup> See above, p. 408.

<sup>116</sup> Stephenson, G. M., *Political History of Public Lands*, 24-30.

line began to be somewhat differentiated from that of States to the south. The rise of an industrial laboring class in the northern group resulted in a strong workingman's attitude toward the land question different from the traditionally conservative attitude of the capitalist East. The settlement of Western land came to be looked upon as a safety valve for the crowded labor market of the East, where competition for jobs was being intensified by the increased immigration of the forties and fifties. Many of the new immigrants, with recollections of land monopoly and landlord oppression, were predisposed toward democratic methods of distributing land, including the homestead system. This movement began to be vocal in regard to the land question in the forties, and gradually became more or less connected with the growing antislavery sentiment.<sup>117</sup> Gradually, also, the earlier opposition of the Northeast toward democratic methods of land distribution was tempered by its interest in obtaining political support from the Northwest in opposing the slavocracy and by the commercial benefits from the expansion of settlement in the Northwest, made possible by railway building. After about 1830 the plantation South, seeing in the rapid development of the West an extension of the power that was criticizing its cherished institutions, was inclined to oppose the extension of the area of free soil and the homestead system, especially after the frustration of the hope for a political alliance with the upper Mississippi valley.<sup>118</sup> Opposition to policies favorable to small freeholds was much less intense in the strictly farming portions of the South, and among the mountain folk the homestead policy won many friends. The general point of view of the Northwest was even shared by the public land States of the Southwest in the pioneer stages of settlement. Generally this sentiment was in favor of preëmption and hostile to sale of land in large blocks and to high minimum provisions with respect to acreages and prices. The graduation principle was by no means universally popular, for it was considered an excuse to prevent consideration of a homestead policy and as promotive of speculation. The last mentioned reason also made the policy of military bounties after the Mexican War widely unpopular in the West. There was not a little Western sentiment opposed to railway land grants because tending to promote large holdings and speculation. On the other hand, plantation interests, becoming more and more dominant in the Southwest, were inclined to favor graduation, railway land grants, and military bounties. The question of distribution, so acute in the forties, was much less a clear-cut case of sectional divergence, being complicated by questions of States' rights, national revenue, and the tariff.<sup>119</sup>

#### SUPPLY AND VALUE OF LAND

There was a tendency with the passage of time for the older areas to develop a relative scarcity of easily available land of highest desirability, as a result of

<sup>117</sup> Stephenson, G. M., *Political History of Public Lands*, 103-113; Commons, "Horace Greeley and the Working Class Origins of the Republican Party," in *Political Science Quarterly*, XXIV, 468-488.

<sup>118</sup> Stephenson, G. M., *Political History of Public Lands*, 116, 151-157, 181-183, 203-214; Hibbard, *Public Land Policies*, 366-378.

<sup>119</sup> Stephenson, G. M., *Political History of Public Lands*, 19-23, 30-34, 68, 87, 91-95, 117, 119-121, 126-130; Ballagh, "Southern Economic History: Tariff and Public Lands," in *Amer. Hist. Assn., Annual Report*, 1898, pp. 235-242.

occupancy, progressive exhaustion of soil by single cropping, and the practice of holding large reserves. Furthermore, as long as soils of high quality were available on the frontier much land of second quality or requiring drainage or clearing was passed up. As this relative scarcity developed, it motivated emigration and gave rise to some tenancy.

Late in the ante bellum period there was a tendency in the South Atlantic coastal plain to devote some expenditure to drainage. The movement began in eastern North Carolina, at least as early as the second decade, and was probably more extensive in that State than elsewhere. General Blount, a pioneer in this movement, made a large fortune by drainage of swamp lands, of which he owned upwards of 50,000 acres. In the late thirties State school funds were employed for the purpose, and by 1841 the engineer in charge reported some 15,000 acres ready for sale. Most of this development was ditch drainage, though some planters were also experimenting with tile.<sup>120</sup> There were reports of reclamation by drainage in Virginia and eastern South Carolina and Georgia (not connected with rice irrigation), and even in the western counties. There was considerable discussion of again draining the inland swamps, formerly in rice cultivation.<sup>121</sup> Several States passed legislation to overcome some of the legal obstacles.<sup>122</sup> Drainage in connection with the rice industry, of course, was due not so much to scarcity of land as to technical requirements of the crop. Drainage along the lower Mississippi, begun early in the French régime, was justifiable because of the high fertility of the alluvial lands, rather than by reason of scarcity. Between 1830 and 1850 the system of levees was gradually extended on the east side of the Mississippi to 140 miles above New Orleans, and on the west side comprised 1,400 miles of levees, extending to the Arkansas boundary. The area reclaimed in Louisiana included 3,500,000 acres of former Federal land.<sup>123</sup>

The scarcity of land in older areas was not absolute, but relative to the great abundance of fertile land available in frontier regions. The vast potential cotton regions in Texas would soon have become available by the extension of railroads. Doubtless the Indians would have been expelled from the fertile cotton lands of Indian Territory and Oklahoma. Only the very choice lands in the newer portions of the South were as yet occupied by slaveholders. The era of railway building had just begun when the Civil War broke out. In the South Atlantic States the amount of improved land in farms increased 61.5 per cent from 1850 to 1910; in the East South Central States, 131.0 per cent; and in

<sup>120</sup> *Farmer's Journal*, I, 148-150; II, 336; North Carolina, Geological Survey, *Report* (Emmons, *Agriculture of the Eastern Counties*, 1858), p. 31; *ibid.* (Emmons, *Agriculture of North Carolina*, Pt. II, 1860), pp. 50, 58; *Farmers' Register*, IX, 5; Ruffin, *Sketches of Lower North Carolina*, 84, 96; *North Carolina Planter*, II, 147, 308; III, 57; *American Farmer*, 1 series (1819-21), I, 249, 277; II, 72, 154, 243; Ruffin, "Agricultural Features of Virginia and North Carolina," in *De Bow's Review*, XXII, 477-479; XXIII, 10-20.

<sup>121</sup> Cotting, *Report of a Geological and Agricultural Survey of Burke and Richmond Counties*, 28, 33; United States Agricultural Society, *Journal*, I, 101; V, 69; *Carolina Planter* (1844-5), I, 222; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), pp. 70-72; *Southern Agriculturist*, new series, III, 144-147; *Southern Planter*, II, 98; III, 83; *Farmers' Register*, I, 107.

<sup>122</sup> *Ibid.*, IV, 767; *Tennessee Statutes* (Nicholson), 215; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), p. 71.

<sup>123</sup> Orfield, *Federal Land Grants to the States, with Special Reference to Minnesota*, 113; Donaldson, *Public Domain*, 219; *De Bow's Review*, XXIII, 411; *Hunt's Merchants' Magazine*, XI, 413.

the West South Central States, 1832.1 per cent. The percentages of improved land to the total land area in these sections in 1850, 1860, and 1910 were as follows:<sup>124</sup>

Section	1850	1860	1910
South Atlantic.....	17.4	20.3	28.2
East South Central.....	16.6	22.5	38.3
West South Central.....	1.1	2.7	21.2

In view of the above facts the often expressed idea that the slavocracy was about to become moribund for lack of territory for expansion appears to have little foundation. The lower South in 1860 contained land enough to admit of an increase of slave population for many decades. It is probable that Southern filibustering in Nicaragua, the demand for the acquisition of Cuba and Mexico, and the Kansas-Nebraska struggle were the outgrowth of political impulses rather than of economic necessity. The real economic scarcity of the section was in labor and capital, not in land.<sup>125</sup>

Except for periods of excessive speculation or in especially restricted regions, such as the rice and sugar districts, land values were not high. In the later years of the ante bellum period improved rice plantations in the most favorable location for controlling the supply of water sold at from \$100 to \$150 per acre, and rice land without buildings was as high as \$70, but this was for irrigated land. Unimproved rice lands, well located, were worth \$30 to \$40 an acre.<sup>126</sup> As early as 1808, in the sugar district south of Pointe Coupée, Louisiana, cleared sugar lands brought \$40 to \$50 an acre. In 1819 prices between Pointe Coupée and New Orleans for lands exclusive of improvements varied from \$25, probably for land with little clearing, to \$40 or \$50. About 1853 the well improved Fortier plantation sold at the rate of \$169 per arpent (approximately an acre).<sup>127</sup>

In the course of time alluvial cotton lands came to have considerable value. About 1799 cotton land along the Mississippi south of Natchez could be had for 50 cents per acre unimproved and for \$2 to \$10 improved.<sup>128</sup> About 1850 Mississippi bottom land sold for \$12 to \$20 an acre uncleared, and as high as \$40 cleared. Well improved cotton plantations sold as high as \$100 an acre. Apparently the level had been about this high as far back as 1819.<sup>129</sup> In the black prairie of Alabama, after settlement was well established, good cotton plantations sold at \$25 to \$50 an acre.<sup>130</sup>

<sup>124</sup> *United States Census*, 1910, *Agriculture*, 60.

<sup>125</sup> *De Bow's Review*, XIV, 65, 421; XV, 1-14; XVII, 46, 280-283; XXI, 477-490; XXV, 613-626; cf. Halle, *Baumwollproduktion*, I, 38.

<sup>126</sup> *Southern Cultivator*, VIII, 86; Phillips, U. B., *Plantation and Frontier*, I, 134; Russell, R., *Culture of Carolina Rice*, 5.

<sup>127</sup> Schultz, *Travels on an Inland Voyage*, II, 181; *Charleston Courier*, Aug. 12, 1819; Warden, *Account of the United States*, II, 546; *Valley Farmer* (St. Louis), V, 130.

<sup>128</sup> Cuming, *Sketches of a Tour to the Western Country*, 328.

<sup>129</sup> *De Bow's Review*, XI, 59; *Hunt's Merchants' Magazine*, IV, 218; Warden, *Account of the United States*, III, 17; *North Carolina Farmer*, II, 218.

<sup>130</sup> Warden, *Account of the United States*, III, 38; Smith, N. F., *Pickens County*, 183; cf. Du Bose, J. W., *William Lowndes Yancey*, 61.



The above, however, were the choicest lands in plantation regions. In the uplands, from Georgia to the Mississippi river, prices of cotton estates in well settled regions ranged from \$5 to \$25 an acre, according to degree of improvement and extent of exhaustion. Unimproved lands were considerably cheaper. There were extensive areas of inferior lands in the Atlantic and Gulf coastal plains and of good land remote from transport facilities which could be bought for a few cents an acre.<sup>131</sup>

The best lands in Texas were still very cheap. Just before the Civil War the fine bottom land of the Brazos valley sold for less than \$10 an acre, and ordinary upland from a few cents to \$5. In 1857 well improved cotton lands near Brennan were priced at \$10 an acre, and unimproved at \$5. Rich second-valley lands near Gonzales were estimated at \$8 for unimproved and \$10 and \$20 for improved.<sup>132</sup>

The building of railroads increased the values of land in interior districts. North Carolina pine lands, formerly worth only a few cents per acre, increased

TABLE 19.—Value per acre of farm land and buildings, 1850 and 1860<sup>1</sup>

	1850	1860		1850	1860
	dollars	dollars		dollars	dollars
Alabama.....	5.30	9.20	North Carolina.....	3.23	6.03
Arkansas.....	5.88	9.57	South Carolina.....	5.08	8.62
Delaware.....	19.75	31.29	Tennessee.....	5.15	13.13
Florida.....	3.96	5.63	Texas.....	1.44	3.48
Georgia.....	4.20	5.89	Virginia.....	8.27	11.95
Kentucky.....	9.15	15.21			
Louisiana.....	15.20	22.02	Border States.....	7.18	12.33
Maryland.....	18.81	30.19	Lower South.....	4.99	8.54
Mississippi.....	5.22	12.04	Total South.....	6.18	10.40
Missouri.....	6.50	11.54			

<sup>1</sup> *United States Census, 1860, Agriculture*, p. vii; *idem. Statistical View: A Compendium of the Seventh Census*, 169.

to \$3 to \$10 after the advent of railroads.<sup>133</sup> In fact, during the last decade there was a very considerable rise of land values, probably due partly to railways and partly to high prices of cotton and other crops, as shown in Table 19.

In the cotton States land values tended to vary with the longer swings of cotton prices. We have already noted the high prices for cotton land engendered by the speculative crazes of 1817–1819 and 1834–1837. Serious reactions occurred. In 1842 it was declared that lands in Mississippi which had commanded \$40 to \$50 per acre at the height of the land boom could be bought for \$1 to \$10. The long depression of the forties caused land values to sag noticeably in the older cotton regions. In 1843 land in Chester District, South Carolina, had declined

<sup>131</sup> *Southern Cultivator*, I, 14; *American Agriculturist*, III, 118; *De Bow's Review*, VII, 435; X, 68; Smith, N. F., *Pickens County*, 183; Olmsted, F. L., *Journey in the Back Country*, 159; *Farmer and Gardener*, I, 247; White, G., *Statistics of Georgia*, 112, 116, 123, 131, 144, 147, 150, 173, 177, 189, 193, 205, 212, 246, 250, 253, 259, 264, 296, 299, 307, 318, 357, 368, 371, 391, 405; *Carolina Planter* (1840), p. 218; *Farmers' Register*, VI, 436; *Southern Cabinet*, 398; cf. Warden, *Account of the United States*, II, 448; *North Carolina Farmer*, II, 218; *North Carolina Planter*, II, 4; III, 57; *Farmer's Journal*, II, 337.

<sup>132</sup> Olmsted, F. L., *Journey through Texas*, 205–207, 360, 460; *The Arator*, II, 540–541.

<sup>133</sup> *De Bow's Review*, XXVIII, 228.

50 per cent in value during the past three years. The high cotton prices of the next decade resulted in a definite improvement. In 1859 it was declared that the prices of lands in North Carolina had doubled since 1848. In Beaufort County they had increased 500 per cent.<sup>134</sup>

It is probable that prior to 1850 cotton prices exerted a greater influence on the prices of land in the general farming areas of Virginia than did the prices of any of the principal crops grown in those areas; and the relationship was inverse. The rise in the prices of Negroes preceding the crisis of 1837, associated with high cotton prices, tended to depress land prices in Virginia, particularly in areas of large slave population.<sup>135</sup> Cotton prices, however, were only one of a number of complex interrelationships between economic conditions in the lower South and prices of land in the farming States. High cotton prices tended to make slaves high, and this increased the costs of production by slave labor in the farming States, although somewhat offset by higher profits from slave increase. Prosperity in the Southwest tended to induce emigration from the older States and reduce the demand for farm lands. In some measure, however, the same general economic conditions that stimulated speculation in the Southwest operated also in the older farming regions. The wildcat banking issues and general inflation following the War of 1812 stimulated land values in Virginia in spite of the opposite influence of extravagant prices for cotton and slaves.<sup>136</sup> The period of depression in the forties was experienced in Virginia as well as in the lower South.<sup>137</sup> In Kentucky and Tennessee, as we have noted, high prices for staples in the lower South tended to increase demand for food products,<sup>138</sup> thus tending to stimulate land values in these border States.

By the beginning of the nineteenth century the value of uplands in Tidewater Virginia had been reduced to a very low point, partly through soil exhaustion and partly through influence of the system of large holdings, and continued low throughout the period. Thus, in 1841 land in Surrey County was reported to range from \$1.50 to \$10 per acre. South of James River the average value in 1835 was reported as well below \$8. In 1839 "good lands" near Portsmouth could be had for \$5 to \$8 an acre. The same year farms in Gloucester County were reported to average about \$33.<sup>139</sup> The statement was made in 1845 that improved farms could be bought at \$3 to \$20 per acre throughout the whole of the "Peninsula" except around Hampton and in the lower part of York County. Good farms off the rivers and some on the rivers could be had for \$5 to \$10 per acre.<sup>140</sup> Plantations in King George County, along the Rappahannock and Potomac, ranged from \$15 to \$20 per acre. In Charlotte County, in southern Virginia, improved farm lands ranged commonly from \$10 to \$15 in the two

<sup>134</sup> *Agriculturist*, III, 257; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., p. 6; *North Carolina Planter*, II, 308; cf. South Carolina, Geological and Agricultural Survey, *Report* (Lieber, 1856), p. 129.

<sup>135</sup> *Farmers' Register*, III, 128; V, 128.

<sup>136</sup> *Ibid.*, III, 29; V, 363.

<sup>137</sup> *Southern Planter*, VI, 30. See below, p. 914.

<sup>138</sup> See above, p. 459.

<sup>139</sup> *Farmers' Register*, II, 265; VI, 189; VII, 235; IX, 565; cf. *ibid.*, V, 6.

<sup>140</sup> *Southern Planter*, V, 161. For other illustrations, see *ibid.*, IX, 350.

decades preceding 1836.<sup>141</sup> The lower prices quoted above were largely for uplands, with the usual complement of old fields, marsh, and other inferior lands. The higher prices probably represent well improved plantations having more or less alluvial land associated with the uplands. Good lands in the valleys of the James and Rappahannock ranged from \$50 to \$100 per acre throughout the first half of the nineteenth century, and even as high as \$300, although this was exceptional.<sup>142</sup>

In general farming areas such as western and northern Maryland, the Eastern Shore, the Valley of Virginia, the valleys of east Tennessee, the bluegrass region of Kentucky, and northern Missouri, land values, ranging for the most part from \$25 to \$50 per acre and sometimes even more, were higher than in the greater part of the upland plantation regions of the lower South.<sup>143</sup> Across the Potomac from Washington land was said to be worth about \$30 per acre as early as 1815. In 1853 farms were pointed out in Albemarle County, Virginia, that would bring \$30 to \$60 an acre. The rougher foothill country of Amherst and Nelson counties was valued at \$12 to \$20. In 1855 good farm land in Rockingham County, which included part of the Great Valley, sold for nearly double the price of good farm land in Albemarle County, east of the Blue Ridge. In Rockbridge County, also partly in the Valley, the best bottom lands were worth \$100 an acre, but mountain lands were as low as 10 cents. Rolling arable uplands ranged from \$5 to \$50.<sup>144</sup> About 1819 improved land in Montgomery County, Maryland, was valued at \$15 an acre. In western Maryland good farms were probably higher. In the fifties it was declared that land in Maryland "of late years" had risen as much in value as in Pennsylvania.<sup>145</sup> In 1817 prime farms near Lexington, Kentucky, could be had for \$40 to \$50 per acre. After the crash in 1819, however, lands that previously brought \$200 an acre might be had for \$25. Near Paris, Kentucky, about 1820, some of the "finest land in Kentucky" could be purchased for \$40 an acre. In Washington County, south of the Kentucky river, improved farm land was \$40 to \$50. In 1816 Kentucky land near the Tennessee boundary was from \$10 to \$20. About 1856 good bluegrass lands in various parts of the State were quoted at \$30 to \$200 an acre, but probably mostly from \$50 to \$100.<sup>146</sup> In the Nashville Basin good improved farm land in the fifties was valued at \$50 to \$60. An official tabulation of average values

<sup>141</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 23; *Farmers' Register*, III, 372; IV, 376.

<sup>142</sup> *American Agriculturist*, III, 104; *De Bow's Review*, XXIII, 297; Godley, *Letters from America*, II, 202; *Farmers' Register*, V, 363; VI, 189.

<sup>143</sup> *Ibid.*, II, 390; III, 29; United States, Dept. Agric., *Annual Report*, 1864, p. 20; *idem*, Patent Office, *Annual Reports, Agriculture*, 1852, p. 95; 1854, p. 193; Martin, J., *Gazetteer of Virginia*, 100; La Rochefoucauld, *Travels*, III, 165; Featherstonhaugh, *Excursion through the Slave States*, I, 49; Godley, *Letters from America*, II, 202; *De Bow's Review*, X, 68; XVIII, 60; XXV, 164; Melish, *Travels*, II, 190; Fearon, *Sketches of America*, 235; Olmsted, F. L., *Journey through Texas*, 19; United States Agricultural Society, *Journal*, VIII, 188.

<sup>144</sup> *Farmers' Register*, I, 552; V, 8; *Southern Planter*, XIII, 142; XV, 56, 372.

<sup>145</sup> Russell, R., *North America, Its Agriculture and Climate*, 134; Faux, *Memorable Days in America* (Thwaites, *Early Western Travels*, XI), 129, 148.

<sup>146</sup> *Ibid.*, 14, 186; Welby, *Visit to North America*, 225; Warden, *Account of the United States*, II, 340; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 540, 545; 1858-1859, p. 124.

biennially from 1836 to 1856 shows a downward trend from 1836 to 1846 and then a steady upward trend until 1856.<sup>147</sup>

#### TENANCY AND TENANT CONTRACTS

Since no statistics of tenancy are available, we can only infer from general accounts its extent and character. It is probable that in the post colonial period tenancy was less prevalent in eastern Virginia and Maryland than in the earlier period, and that it did not make much headway elsewhere in the South. This seems to be indicated by the scarcity of references to it. It also seems to be a logical conclusion from the prevailing conditions. The decadence of commercial agriculture in the Tidewater after the Revolutionary War, the breaking up of the great estates, and other causes probably tended to reduce the prevalence of tenancy. The competition of Western lands tended to drain off all but the most inert of the landless white population.<sup>148</sup> In the lower South Negroes were not free to become croppers or tenants in considerable numbers before the Civil War. Many of the whites with little capital preferred to leave the vicinity of large plantations and seek their fortunes in areas of cheap land. In the post colonial South, therefore, prior to the Civil War, tenancy was probably casual, incidental, and transitory.

Occasional instances occurred as an arrangement for getting land cleared. Thus, in early Kentucky proprietors of large tracts were offering to let land free of rent on condition of clearing a certain part each year.<sup>149</sup> In 1820 an absentee Georgia landowner wrote that he was renting 400 acres of land with improvements, of which 130 acres were cleared, for the nominal price of \$50 a year, as a means of safeguarding buildings and timber.<sup>150</sup>

There were certain exceptions to the general scarcity of tenancy. Thus, about 1835, in the Eastern Shore, lack of emigration had caused lands to be comparatively high in value and gave rise to a good deal of tenancy. Poor land was rented for "never less than one-third of the grain, and also of the smaller . . . crops of castor beans and sweet potatoes, the tenant furnishing labor and work stock." Land of a little better quality paid two fifths of the corn and one third of the oats and smaller crops. Good land was readily rented for one half the crops. Renting was from year to year, but tenants did not move frequently. The situation on the Eastern Shore contrasted sharply with that across the Bay, where good tenants were few and the renting terms much more liberal.<sup>151</sup> About 1840 some tenancy was reported in the valleys of east Tennessee. Payment of a third of the grain was customary, but on the choicest lands the share varied between a third and a half.<sup>152</sup> In a South Carolina act of 1812, passed to enable landlords to repossess land after the termination of leases, it was declared that

<sup>147</sup> Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, pp. 167, 170; 1856-1857, p. 25. Concerning a similar trend in Missouri, see *Valley Farmer* (St. Louis), VI, 245.

<sup>148</sup> Rowland, *George Mason*, I, 378; II, 14, 21.

<sup>149</sup> *Kentucky Gazette* (Lexington), Nov. 7, 1795, advertisements in this and succeeding issues; cf. Williams, S. C., *Beginnings of West Tennessee*, 205.

<sup>150</sup> *Niles' Register*, XVIII, 47.

<sup>151</sup> *Farmers' Register*, III, 236-239.

<sup>152</sup> Smith, J. G., *East Tennessee*, 25.

tenants frequently made a practice of holding over such lands.<sup>153</sup> In 1843 Edmund Ruffin reported that in Chester District, South Carolina, though land values had recently fallen by one half and the best would not bring over \$10 an acre, farms still rented at the customary rates of \$2 an acre or a third of the grain and a fourth of the cotton, a system of shares prevalent since the Civil War. Ruffin remarked that this was exorbitant rent for such poor land, and fell most heavily "on poor people, who can neither buy nor move away."<sup>154</sup>

About the close of the colonial period, as we have noted, long leases were rapidly disappearing in Virginia and Maryland. It is probable that yearly leases became generally prevalent early in the nineteenth century. An editorial in the *American Farmer* in 1847 deplored the prevalence of short leases, attributing the exhaustion of the land partly to their influence. In Maryland the evil results were probably aggravated by a decision of a Baltimore court in the following year giving to the landlord all manure produced on a leasehold.<sup>155</sup> Another colonial practice that seems to have declined was that of letting land or land and slaves to overseers on a share basis. The system came to be recognized as objectionable, particularly because it stimulated methods resulting in soil exhaustion.<sup>156</sup>

<sup>153</sup> *South Carolina Statutes* (Cooper), V, 676.

<sup>154</sup> South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., p. 6.

<sup>155</sup> 4 series (1846-8), II, 306; III, 354. For interesting suggestions as to desirable terms to be included in a Virginia cash lease, see Jefferson, *Farm Book*, 119 (Photostat copy, Library of Congress).

<sup>156</sup> *Farmers' Register*, I, 37; IV, 1; Taylor, J., *Arator*, 74-78.

## CHAPTER XXVIII

### CHANGES IN THE SUPPLY OF SLAVE LABOR

Changes in Relative Importance of Various Sources of Supply, 648. The External Slave Trade as a Source of Supply, 648. Natural Increase of Slave Population, 650. The Geographic Shift in Slave Population and Changes in Proportion of Slaves, 650. The Internal Slave Trade, 658. Commercial Slave Breeding, 661. Prices of Slaves, 663. Rates of Hire, 667. Agitation for Reopening the Slave Trade, 668.

#### CHANGES IN RELATIVE IMPORTANCE OF VARIOUS SOURCES OF SUPPLY

The legal prohibition of the external slave trade ultimately exerted a profound influence on the supply of labor and general economic life. While there was considerable evasion of the Federal laws prohibiting the trade, enforcement was sufficiently effective to shift the principal basis of supply from importation to natural increase, and consequently to change the nature of the costs of maintaining the supply. Among the other results were important geographic shifts in slave population, changes in the adequacy of the labor supply, a notable increase in slave values and corresponding modifications in care and condition of slaves, a greater economy in their use, and important political movements looking toward modification of restrictions on the external slave trade.

There were certain minor sources of increase and decrease of negligible importance, such as occasional instances of voluntary enslavement and the kidnapping of free Negroes, which was sufficiently extensive to lead to repressive legislation in thirteen Southern States.<sup>1</sup> Emancipation and escape from bondage were minor sources of depletion of supply. According to census estimates, fugitive slaves numbered 1,011 in 1850 and 803 in 1860.<sup>2</sup>

#### THE EXTERNAL SLAVE TRADE AS A SOURCE OF SUPPLY

During the Revolutionary War and until near the beginning of the nineteenth century the external trade was subjected to prohibitory acts recommended by the Continental Congress and passed by various States, and by 1787 it was legal only in the Carolinas and Georgia. North Carolina maintained a prohibitive duty, and in that year South Carolina began a series of temporary acts of prohibition, which ended in 1803.<sup>3</sup> In 1793 Georgia prohibited the introduction of "any negro, mulatto, or any other slave into that state," and in 1798 even included a prohibitory clause in the new constitution.<sup>4</sup> Gradually, however,

<sup>1</sup> Collins, W. H., *Domestic Slave Trade*, 84-86; Northup, *Twelve Years a Slave*, *passim*; Paxton, *Letters on Slavery*, 30 n.

<sup>2</sup> United States, *Statistical View: A Compendium of the Seventh Census*, 64; *United States Census*, 1860, *Population*, p. xvi; cf. Halle, *Baumwollproduktion*, I, 147.

<sup>3</sup> *Virginia Statutes* (Hening), IX, 471; XII, 182; *South Carolina Statutes* (Cooper), V, 38, 91, 204, 248, 284, 330, 377, 397; *Georgia Laws* (Prince, 1822), p. 455; United States, *Journals of the Continental Congress*, IV, 258. See the account of the political history of this legislation, in Phillips, U. B., *American Negro Slavery*, 135-138.

<sup>4</sup> *Georgia Laws* (Prince, 1822), pp. 455, 559; cf. *Baltimore Daily Intelligencer*, Jan. 24, 1794; *Guardian of Freedom* (Frankfort, Ky.), Sept. 25, 1798.

opposition declined, and the influence of these States was largely responsible for the postponement of Federal legislation before 1808 to make the constitutional clause effective.<sup>5</sup>

The period 1790–1808 was one of great activity in the slave trade. From 1795 to 1804 inclusive the allowance of slaves for English ships clearing for Africa from England was estimated at 380,893.<sup>6</sup> The trade to North America for 1790–1800 was estimated by Henry C. Carey at 26,197.<sup>7</sup> It was very active in the next decade, estimated by Von Halle at 40,000 in all.<sup>8</sup> According to Professor W. H. Collins, however, 39,075 were imported at Charleston alone during the twelve months preceding February, 1804,<sup>9</sup> and Representative S. L. Mitchell, of New York, declared on February 14, 1804, that in the past twelve months 20,000 Negroes had been imported into South Carolina and Georgia.<sup>10</sup>

After the external slave trade became illegal, it ceased to be relatively as important a source of labor supply as formerly. Nevertheless, there was a great deal of illicit importation.<sup>11</sup> Du Bois has shown that the efforts of the Federal authorities to suppress the trade in the earlier years were worse than half-hearted.<sup>12</sup> In 1819 annual importation was estimated by Wright, of Virginia, at 15,000 and by Middleton, of South Carolina, at 13,000. In the previous year General James Tallmadge, of New York, estimated the number introduced during the past year at 14,000. After 1812 enforcement was more efficient, having been strengthened by supplementary legislation. In 1818–19, however, the illicit trade of Louisiana alone was estimated at 10,000 for the past year.<sup>13</sup> From 1825 to 1850 the trade seems to have been carried on in somewhat diminished extent. In the last decade preceding the Civil War agitation for reopening the slave trade and rapidly rising slave values probably stimulated an increase. Collins estimates illicit traffic as follows:<sup>14</sup>

1808–1820.....	60,000
1820–1830.....	50,000
1830–1840.....	40,000
1840–1850.....	50,000
1850–1860.....	70,000
Total.....	270,000

The aggregate number is estimated by Du Bois at 250,000.<sup>15</sup>

<sup>5</sup> Du Bois, *Suppression of the African Slave-Trade*, 51, 69–72; Phillips, U. B., *American Negro Slavery*, 139–147.

<sup>6</sup> Williams, G., *Liverpool Privateers and Slave Trade*, App., pp. 680, 685.

<sup>7</sup> *The Slave Trade*, 16.

<sup>8</sup> *Baumwollproduktion*, 49.

<sup>9</sup> *Domestic Slave Trade*, 12.

<sup>10</sup> Du Bois, *Suppression of the African Slave-Trade*, 85.

<sup>11</sup> This evidence has been brought together by Professor Du Bois. "Enforcement of the Slave Trade Laws," in Amer. Hist. Assn., *Annual Report*, 1891, pp. 161–172. A more complete study of the slave trade by the same writer is the *Suppression of the African Slave-Trade*. A short but independent treatment is given by Mr. W. H. Collins. *Domestic Slave Trade*, Chap. I.

<sup>12</sup> *Suppression of the African Slave-Trade*, 108–118.

<sup>13</sup> Collins, W. H., *Domestic Slave Trade*, 16; Du Bois, *Suppression of the African Slave-Trade*, 124; *Niles' Register*, XV, 269.

<sup>14</sup> Du Bois, *Suppression of the African Slave-Trade*, 123, 128, 178–182; Collins, W. H., *Domestic Slave Trade*, 20.

<sup>15</sup> "Enforcement of the Slave Trade," in Amer. Hist. Assn., *Annual Report*, 1891, p. 173.

## NATURAL INCREASE OF SLAVE POPULATION

Since vital statistics for the South during this period are too inadequate to be of much value,<sup>16</sup> it is probable that an approximate estimate of rate of natural increase may be secured by subtracting estimated net additions to the Negro population through the slave trade from the total increase of Negro population, and assuming that the rate for the natural increase of slaves was the same as the rate thus obtained for all Negroes. This assumption appears fairly justified because free Negroes were but a small percentage of the entire Negro population, although the natural rate of increase for free Negroes was probably lower than for slaves.<sup>17</sup> (Table 20.) The rate of natural increase shows considerable change from decade to decade. The degree of variation, however, is no greater than is indicated by similar statistics after the Civil War. The lower rates in the later decades run counter to the assumption that rising values of slaves and the resulting premium on good treatment and encouragement of breeding stimulated a higher rate of increase. A contemporary statistician attributed the decrease

TABLE 20.—*Estimated number of slaves imported and estimated natural rates of increase of Negro population in the United States by decades, 1790–1860*<sup>1</sup>

	1790–1800	1800–1810	1810–1820	1820–1830	1830–1840	1840–1850	1850–1860
Estimated number of slaves imported.....	30,000	60,000	50,000	40,000	40,000	55,000	75,000
Estimated natural rate of increase of Negro population.....	28.3	31.6	25.0	29.2	21.7	24.7	20.0

<sup>1</sup> See footnote 17.

in rates to the larger percentage of adults in the population of the earlier period, resulting from the colonial slave trade.<sup>18</sup> It is probable that the increasing importance of the relatively lower rate of increase of the free Negro population was also partly responsible.

## THE GEOGRAPHIC SHIFT IN SLAVE POPULATION AND CHANGES IN PROPORTION OF SLAVES

One of the most striking phases of the expansion of Southern agriculture was the shift of slave population from the older planting regions—particularly the border States—to the newer planting regions in the lower South. (See slave maps, Figs. 2, 3, 4, and 5.) By calculating the difference between the natural rate of increase and the actual rate in the selling States, as shown by the census,

<sup>16</sup> The only vital statistics for the period are for the decades 1850 and 1860. These are far from complete—especially those for 1850. *United States Census*, 1850, pp. xxxix–xli; *ibid.*, 1860, *Population*, pp. vii–viii, xxxviii–xlv.

<sup>17</sup> See pp. 524, 938. The estimate of the slave trade in the table is employed as a statistical device to reduce the margin of error in calculating the rates of increase of Negro population. Unless the estimates are more than 50 per cent inaccurate, less error is involved in employing them than in not employing them.

<sup>18</sup> *United States Census*, 1860, *Population*, p. viii.



Collins has estimated the transfer of slaves from selling States to buying States in the various decades as follows:<sup>9</sup>

1820-1830.....	124,000
1830-1840.....	265,000
1840-1850.....	146,000
1850-1860.....	207,000

These estimates are on the assumption that in the decade 1820-1830 the selling States included Virginia, Maryland, Delaware, North Carolina, Kentucky, and the District of Columbia. It is assumed that the buying States included South Carolina, Georgia, Alabama, Mississippi, Tennessee, and Missouri, with Florida added after 1830 and Texas after 1850, while South Carolina and Missouri were transferred to the selling group. The division into two groups, while it indicates roughly the magnitude of the movement, obscures some important aspects of it. Within each group of States important inter-State, and even intra-State transfers of slaves were taking place. Thus, slaves were being carried from east to west in the buying group. From 1830 to 1860 slaves from the other selling States were pouring into the newer parts of Missouri, even though during much of the period the older sections of the State were transferring slaves to the lower South. Although North Carolina is classed as a selling State, slaves were probably introduced in large numbers into the rapidly expanding tobacco and cotton sections of the State, especially during the decade 1850 to 1860. While slaves were pouring into west Tennessee, they were probably being carried out of middle Tennessee during the later decades. The decade 1790 to 1830, of course, witnessed the transfer of a large number from Maryland, Virginia, and North Carolina to Kentucky and Tennessee.

The percentage of slave population to total population of the South declined from 1790 to 1800 (See Table 21), a decade of considerable immigration from the North to Kentucky and the seaboard States. After 1800 the percentage increased until 1820, attributable partly to the external slave trade, though illicit after 1808, and to the high natural rate of increase among slaves. For the next two decades the percentage remained the same as in 1820, and then a period of decline set in, continuing until 1860. The variations, however, were minor. Throughout the entire period the proportion of slave population was approximately one third of the total population. In the border States the percentage of slaves to total population declined steadily from 32.0 in 1790 to 22.3 in 1860. This change is explicable in terms of the internal slave trade, the emigration of slaveholders with their slaves, extensive emancipation in Maryland and Delaware, and some Northern immigration to the border States. In Kentucky and Missouri the course of change in percentage of slaves followed that of the lower South, increasing up to 1830 and thereafter declining. In Missouri this was due mainly to the heavy immigration of nonslaveholders after 1830. In Maryland and Delaware there was an almost unbroken decline from 1790 to 1860. In Virginia

<sup>9</sup> *Domestic Slave Trade*, 61-67.

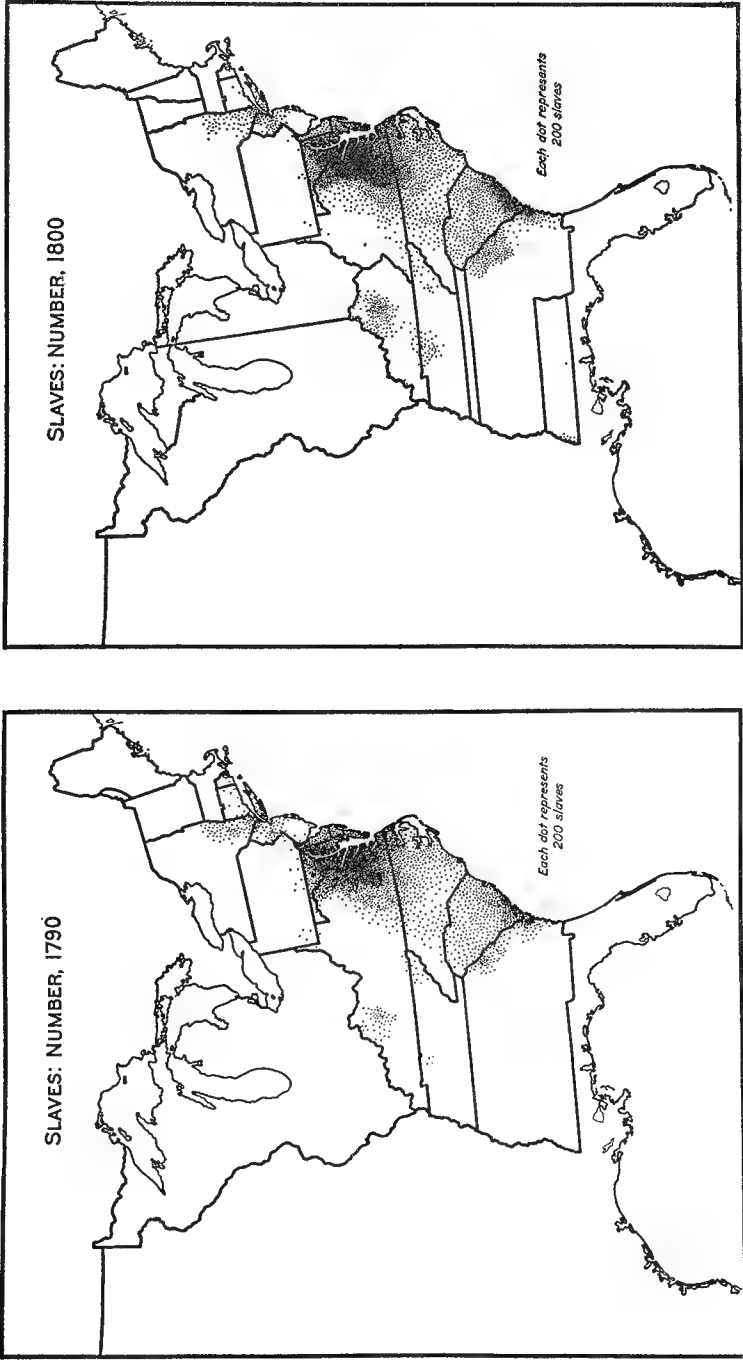


FIG. 2.—Geographic expansion of slave population in the Southern States, 1790–1800, as shown by census enumerations. The maps on this page and on pages 653–655 inclusive were prepared in the Bureau of Agricultural Economics, United States Department of Agriculture.

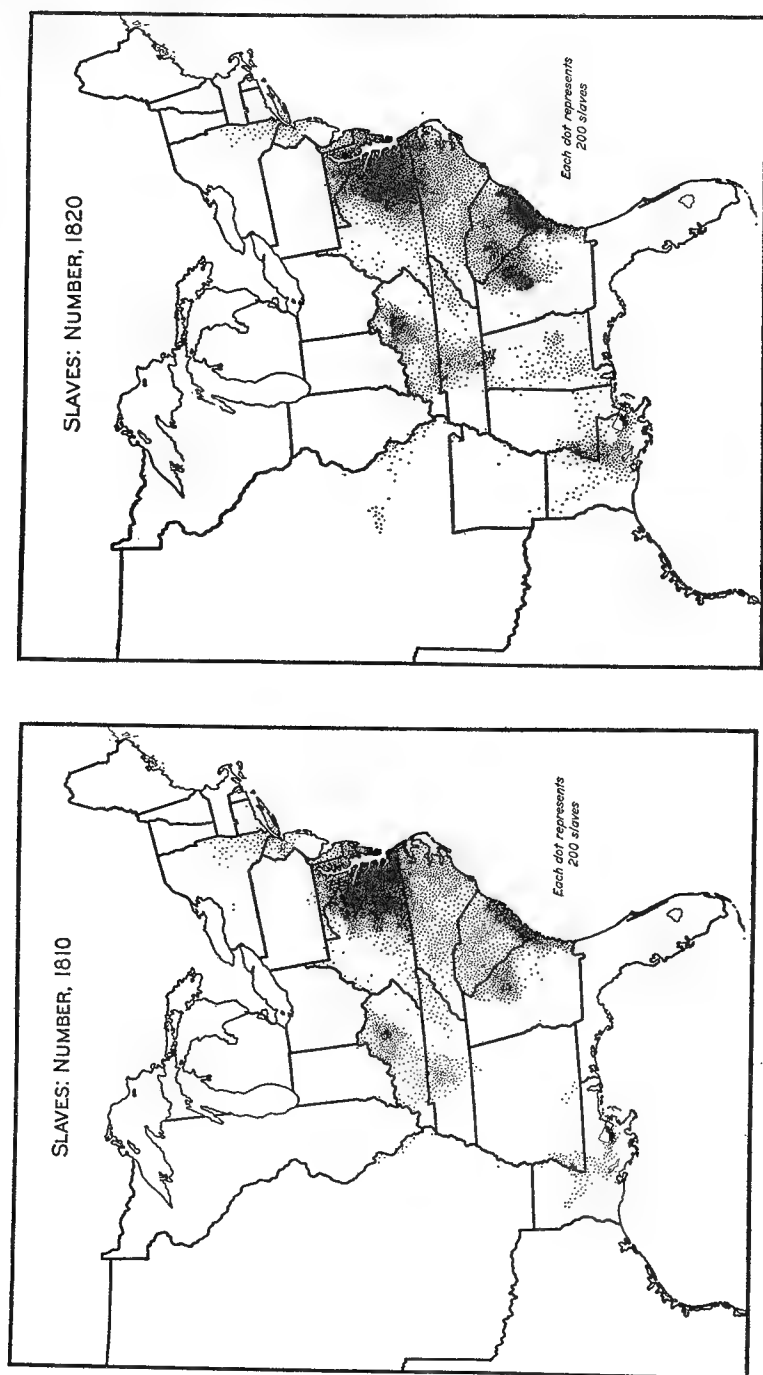


FIG. 3.—Geographic expansion of slave population in the Southern States, 1810-1820, as shown by census enumerations.

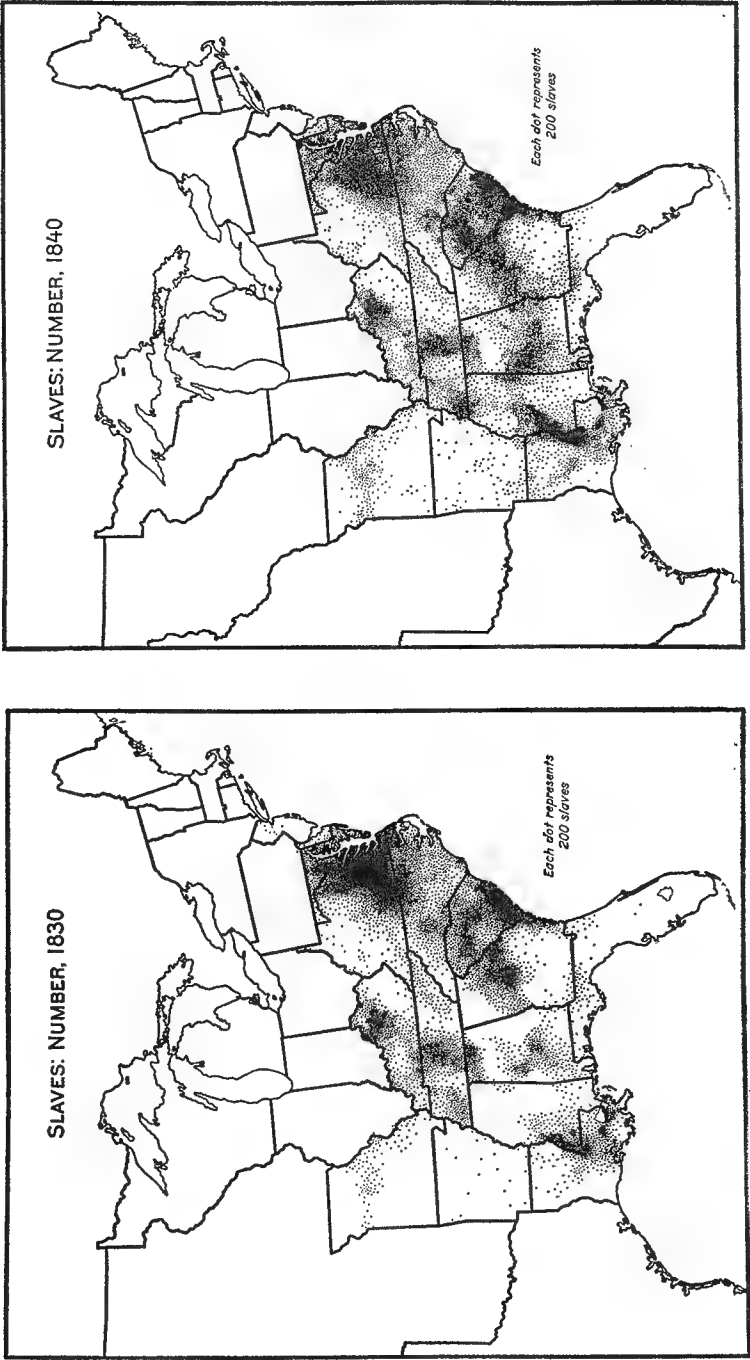


FIG. 4.—Geographic expansion of slave population in the Southern States, 1830-1840, as shown by census enumerations.

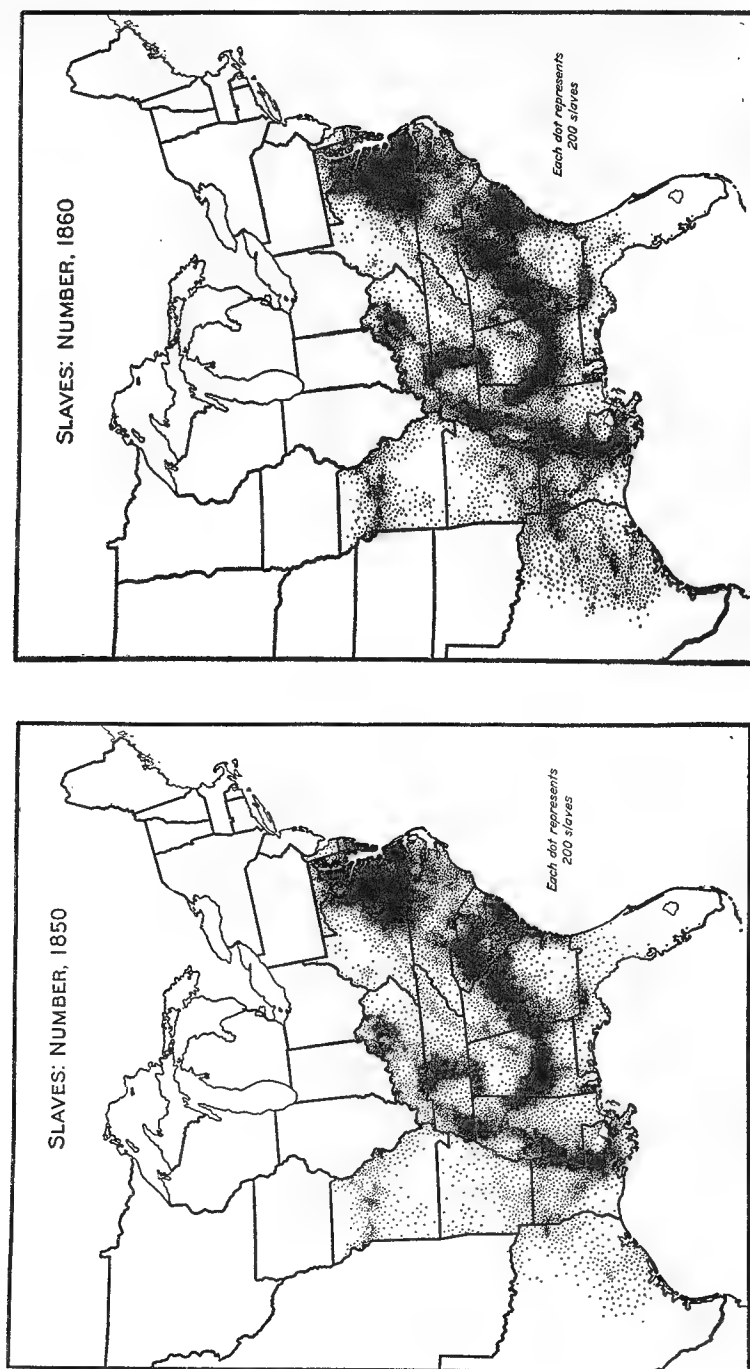


FIG. 5.—Geographic expansion of slave population in the Southern States, 1850–1860, as shown by census enumerations.

the decrease was continuous after 1810. North Carolina and Tennessee were anomalous in that there was a steady and unbroken increase for the entire period, with the exception of 1830-1840 in North Carolina. One explanation is that these States were especially important as sources of white emigration to other States. In 1860 North Carolina contained only one tenth as many white people who had come from outside the State as had emigrated from the State, Tennessee sent out more than twice as many as had been received. Furthermore, western Tennessee received large accessions of slaves. At the beginning of the period both States were pioneer farming communities, but cotton transformed much of northeastern and south central North Carolina and central and western Tennessee into plantation areas. In the lower South there was a decline in the

TABLE 21.—*Per cent of slave population to total population, by States, 1790-1860<sup>1</sup>*

States	1790	1800	1810	1820	1830	1840	1850	1860
Alabama.....	....	....	....	32.7	38.1	42.9	44.4	45.1
Arkansas.....	....	....	....	11.3	15.1	20.4	22.4	25.5
Delaware.....	15.0	9.6	5.7	6.2	4.3	3.3	2.5	1.6
Florida.....	....	....	....	....	44.6	47.2	45.0	44.0
Georgia.....	35.5	36.5	41.7	43.9	42.1	40.6	42.1	43.7
Kentucky.....	16.1	18.3	19.8	22.5	24.0	23.4	21.5	19.5
Louisiana.....	....	....	45.3	45.0	50.8	47.8	47.3	46.9
Maryland.....	32.2	30.9	29.3	26.4	23.0	19.1	15.5	12.7
Mississippi.....	....	33.8	36.0	43.5	48.1	52.0	51.1	55.2
Missouri.....	....	....	15.2	15.4	17.9	15.2	12.8	9.7
North Carolina.....	25.5	27.9	30.4	32.1	33.3	32.6	33.2	33.4
South Carolina.....	43.0	42.3	47.3	51.4	54.3	55.0	57.6	57.2
Tennessee.....	9.6	12.9	17.0	18.9	20.8	22.1	23.9	24.8
Texas.....	....	....	....	....	....	....	27.4	30.2
Virginia.....	39.2	39.3	40.3	39.9	38.8	36.3	33.2	30.7
Southern States.....	33.5	32.7	33.4	34.0	34.0	34.0	33.3	32.3
Border States.....	32.0	30.8	30.1	29.6	29.0	26.7	24.7	22.3
Lower South.....	41.1	40.3	44.7	45.6	46.0	46.0	45.4	44.8

<sup>1</sup> *United States Census, 1860, Population*, 599-604. Delaware, Maryland, Virginia, Kentucky, Missouri, North Carolina, and Tennessee are included in the group of border States, and the remaining States, in the lower South.

percentage of slave population to total population from 1790 to 1800. From that time there was a steady and rapid increase up to 1830; in 1840 there was no change but during the next two decades a notable decrease, in spite of the fact that the slave population of these States was constantly recruited from the domestic slave trade and illicit importations.

The fact that from 1840 to 1860 slavery was relatively declining even in the lower South appears to have been due partly to the fact that in spite of the alleged discouraging influence of slavery on immigration, the lower South was a large gainer by net white immigration. In 1860 the free population of the lower South, including Texas, from outside the section, numbered 641,475, of whom 381,720 were from the border States, 85,687 from the rest of the United States, and 174,068 from abroad. There were 111,351 free persons living in the United

States outside the lower South who were natives of that section, making for the lower South a net gain of 530,124 free persons.<sup>20</sup> If it may be assumed that virtually all this net gain by white migration consisted of people who had come in after 1830, it will be obvious that it was considerably less than the estimated increase of slaves for the same period attributed to the external slave trade and the movement of slaves to the lower South, by perhaps as many as 200,000.<sup>21</sup> However, in the statistics of net gain of free population no allowance is made for the loss by mortality of persons who came in during the three decades, while the statistics of net slave importations represent the net estimated increase at the end of each decade. The actual net gain by white migration must have been greater than the apparent gain.

Another probable explanation for the decrease in percentage of slave population is the fact that the rate of natural increase was higher for whites than for slaves. This conclusion was frequently asserted during the ante bellum period both as a result of observation and of local studies of vital statistics.<sup>22</sup> By deducting for the decades 1830-1860 the somewhat uncertain statistics of foreign white immigration of the United States census,<sup>23</sup> the net natural increase of white population for the entire United States was 29.5 per cent from 1830 to 1840, 26.8 per cent from 1840 to 1850, and 23.8 per cent from 1850 to 1860, as compared with estimated rates of 21.7, 24.7, and 20.0 respectively for the Negro population. Assuming that the same rates for white population prevailed in the lower South, a preponderant rate of natural increase for the white population is indicated as at least partly responsible for the decreasing percentage of slaves.

Of the individual States comprising the lower South, Alabama, Arkansas, Texas, and South Carolina show a continuous increase in the percentage of slaves, excepting a small decline in South Carolina for the decades ending in 1800 and 1860. The same general trend was characteristic of Mississippi, with the exception of a slight decline from 1840 to 1850, while a very notable increase in the percentage of slave population occurred from 1850 to 1860. In Louisiana there was a decline after 1830, but outside of New Orleans the proportion of slaves increased steadily. In Florida the percentage increased rapidly from 1830 to 1840, but decreased during the next two decades. In Georgia the percentage increased until 1820, declined from 1820 to 1840, during the great rush of planters to the Southwest, and increased again from 1840 to 1860. Georgia was a halfway region in westward migration, one stream of migration from the north and east was entering the State, while another stream was flowing on to the Southwest.

<sup>20</sup> From the same figures Von Halle came to the opposite conclusion, that the lower South was a heavy loser in net migration. *Baumwollproduktion*, I, 141. This was due to the fact that he included Tennessee and North Carolina with the lower South. As a matter of fact, the remainder of the lower South gained largely by emigration from Tennessee and North Carolina, while those States also lost a considerable part of their white population by emigration to the Northern States or to the other border States.

<sup>21</sup> Even allowing for the fact that in estimating the internal movement of slaves Tennessee was grouped with the buying States.

<sup>22</sup> *United States Census, 1860, Population*, p. viii.

<sup>23</sup> *Ibid.*, p. xix, gives 552,000 for 1830 to 1840, 1,558,300 for 1840 to 1850, and 2,707,624 for 1850 to 1860.

## THE INTERNAL SLAVE TRADE

It is impossible to say definitely what percentage of the movement of slaves to the lower South was comprised in the domestic slave trade, although it has been estimated by Collins at about two fifths.<sup>24</sup> There is abundant evidence that the domestic slave trade came to be of considerable magnitude. In 1835 a writer in the *Farmers' Register* declared Virginia slaves were being carried to the Southwest by thousands, "and we cannot even enter into competition with them for their purchase . . . The price here is not regulated by our profits but by the profits of their labor in other states."<sup>25</sup> About 1823 a contemporary estimate placed the number sold out of Delaware, Maryland, and Virginia at 10,000 to 15,000 per year. In 1832 the number from Virginia alone was estimated at 6,000 per annum.<sup>26</sup> About 1836 the movement from Virginia was enormous. An estimate published in October, 1836, probably exaggerated, placed the total number in the past twelve months at 120,000, of whom 80,000 were carried out by their emigrating masters.<sup>27</sup>

The transfer of slaves from less profitable to more profitable regions began in the colonial period. About the beginning of the nineteenth century the movement included the transfer of many slaves from New York and New Jersey to the South.<sup>28</sup> In the last decade of the eighteenth century and the early decades of the nineteenth some of the movement was from Virginia and Maryland westward into Kentucky and Missouri. Phillips thinks the domestic slave trade, as distinguished from migration with their masters, did not become very important before about 1815.<sup>29</sup> The principal movement was from the border States to the lower South. In the last two decades of the ante bellum period Kentucky and Missouri became selling States. The movement from the former was so heavy during most of the last decade that it virtually offset the natural rate of increase. South Carolina was also a selling State in that period.<sup>30</sup> Mr. W. H. Collins holds that the sale of slaves from South Carolina began as early as 1830.<sup>31</sup> The exodus with their masters began earlier. James H. Hammond estimated that in the decade 1830-1840 South Carolina slaves were carried out of the State, largely by their emigrating masters, at the rate of 8,300 per year.<sup>32</sup>

A number of States passed laws from time to time to exclude slaves of whatever character, brought from other States. The Revolutionary enthusiasm, as we have noted, caused several commonwealths to pass laws against the external slave trade.<sup>33</sup> In 1792 citizens of South Carolina passed resolutions that no

<sup>24</sup> *Domestic Slave Trade*, 61-67.

<sup>25</sup> II, 763.

<sup>26</sup> Blane, *Excursion through the United States and Canada*, 226; Dew, *Review of the Debate of the Virginia Legislature of 1831 and 1832*, p. 48; cf. Chevalier, *Society, Manners and Politics in the United States*, 219.

<sup>27</sup> *Virginia Times*, quoted in Niles' *Register*, LI, 83.

<sup>28</sup> *Southern Planter*, XI, 80.

<sup>29</sup> For his summary of the evidence, see *American Negro Slavery*, 188-190.

<sup>30</sup> Address of the Honorable Edward Bates, in Missouri State Agricultural Society, *Report of the Proceedings of the Third Annual Fair*, 11. For indications of the extent of the movement from Kentucky, see McDougale, *Slavery in Kentucky*, 23-28; Tucker, G., *Letters from Virginia*, 29-31; Olmsted, F. L., *Journey in the Back Country*, 283-285; Hammond, M. B., *Cotton Industry*, 53.

<sup>31</sup> *Domestic Slave Trade*, 63.

<sup>32</sup> Address delivered before the South Carolina Institute, Nov. 20, 1849, p. 7.

<sup>33</sup> See above, p. 648.



Negro or person of mixed blood should henceforth be imported into the State or sold thither from other States.<sup>34</sup> In 1778 Virginia prohibited the introduction of slaves, making exception of those brought in by owners from other States with no intention of selling, and of servants brought in by travellers for a transitory stay. Exception was made in 1796 for persons owning lands in the State who brought back slaves carried into another State, provided the latter had not been sold or hired in the meantime. In 1806 the introduction of slaves under any pretext was forbidden, but exception was made in 1811 for persons acquiring slaves by inheritance, devise, or marriage. By act of 1812 importation of slaves born in the United States was permitted provided that within three months females between the ages of ten and thirty years were reëxported, but in 1819 restrictions were removed except on criminal slaves.<sup>35</sup> Maryland prohibited the introduction of slaves, with the exception of those brought in by owners taking up residence, by a series of acts in 1783, 1791, 1794, and 1796. In 1831 importation was absolutely prohibited, but in 1849 all laws excluding slaves, except criminals, were repealed.<sup>36</sup> In 1786 North Carolina prohibited the introduction of slaves from States which had passed laws for freeing slaves, and in 1795 prohibited the introduction of slaves over fifteen years of age from the West Indies. In the previous year the introduction of slaves from other States was prohibited, with the usual exceptions in favor of owners coming to reside and persons inheriting. The various laws prohibiting importation were repealed early in the nineteenth century.<sup>37</sup> A number of other border States forbade introduction of slaves except by immigrants. This became the settled policy of Kentucky after 1792, and of Tennessee from 1826 until 1855, when the importation of slaves as merchandise was permitted. The Missouri constitution of 1820 gave the legislature power to prohibit commercial introduction of slaves, but this power was never exercised.<sup>38</sup>

Most of the States of the lower South followed a vacillating policy with a tendency in the last two or three decades to favor importation. South Carolina maintained a policy of exclusion, with varying exceptions as to immigrants, travellers, and legatees, from 1787 to 1803, and again from 1816 to 1818. In 1823 general importation was legalized, but slaves carried to the West Indies, Mexico, South America, Europe, or any State north of the Potomac were forbidden to return to South Carolina.<sup>39</sup> Georgia passed an exclusion act in 1798 excepting slaves introduced by immigrants. The law was reënacted in 1816, but in 1817 exception was made for citizens importing for their own use but not for sale. This legislation was repealed in 1824, revived in 1829, again repealed in 1842, only to be revived again with certain safeguards, in 1851.<sup>40</sup> The Mis-

<sup>34</sup> *Virginia Chronicle and Norfolk and Portsmouth General Advertiser* (Norfolk), Sept. 22, 1792.

<sup>35</sup> *Virginia Statutes* (Hening), IX, 472; Hurd, *Law of Freedom and Bondage*, II, 2, 6, 8; Collins, W. H., *Domestic Slave Trade*, 111.

<sup>36</sup> Hurd, *Law of Freedom and Bondage*, II, 19-23.

<sup>37</sup> *Ibid.*, 84; Collins, W. H., *Domestic Slave Trade*, 116, 118.

<sup>38</sup> Hurd, *Law of Freedom and Bondage*, II, 14-17, 91, 94; *Kentucky Statutes* (Wickliffe), 629. Comment on the law will be found in *Hall's Wilmington Gazette*, Mar. 8, 1798; cf. Collins, W. H., *Domestic Slave Trade*, 135-137; Trexler, *Slavery in Missouri*, 45.

<sup>39</sup> Hurd, *Law of Freedom and Bondage*, II, 95-98.

<sup>40</sup> *Ibid.*, 101-103; *Georgia Session Laws*, 1816, p. 198; 1817, p. 139; 1824, p. 124; 1829, p. 171; 1842, p. 165; 1851-52, pp. 263-267.

Mississippi constitution of 1817 authorized exclusion of slaves introduced for sale, and in 1819 the legislature imposed a tax of \$20 per head on them, but two years later restrictions were removed except for criminals. The constitution of 1832 forbade commercial introduction after May 1, 1833. An act of 1837 provided that notes given in exchange for slaves imported should be void. Finally, in 1846 the constitution was amended, and the legislature repealed the act of exclusion.<sup>41</sup> In Alabama commercial introduction was prohibited in 1827. The act was repealed in 1829, reenacted in 1832, but again repealed in the same year. In 1826 Louisiana prohibited commercial importation, but the act was repealed in 1828. The following year an act was passed prohibiting introduction of criminal slaves and children separate from the mother, but it was repealed in 1831. In 1832 Louisiana again prohibited commercial importation, but in 1833 the act was repealed.<sup>42</sup>

The trade was well organized. In most towns of importance there were dealers who bought and sold imported or local slaves, or sold on commission, conducting auctions of their own stock and that of others. There were a number of large firms with headquarters in important cities of the border States and branch houses in the lower South. Representatives were sent far and wide through the country to purchase slaves, who were loaded on coastal ships or sent through the country in large coffles.<sup>43</sup>

Generally speaking, the sale of slaves was not popular in the South, although the sentiment grew weaker as economic pressure for transfer from border States to lower South grew stronger. There were undoubtedly many masters who refused to sell except in cases of extreme necessity or under circumstances where sale worked no hardship to slaves; and in many cases great sacrifices were made to keep a slave family together. Many planters migrated to the West to avoid disposing of their slaves.<sup>44</sup> The details of the trade were too shocking and painful to be regarded without aversion. The slave trader himself was looked upon with contempt.<sup>45</sup> According to Olmsted, the rich men of the Southwest held the Virginia planters in contempt because of the participation of the latter in the trade,<sup>46</sup> a fact which recalls Sir William Temple's aphorism: "Treason is loved by many; but a traitor hated by all." Public sentiment especially opposed arbitrary separation of husband and wife or mother and younger children, and in some States there were laws to restrict this practice. It was the rule at some

<sup>41</sup> Phillips, U. B., *Georgia and State Rights*, 143-149; *Mississippi Session Laws*, 1819, pp. 4-8; 1839, p. 456; 1846, p. 234.

<sup>42</sup> *Alabama Session Laws*, 1827, p. 44; 1832, p. 12; Hurd, *Law of Freedom and Bondage*, II, 151, 162; cf. Collins, W. H., *Domestic Slave Trade*, 126-128.

<sup>43</sup> For detailed account, see Phillips, U. B., *American Negro Slavery*, 190, 193-198.

<sup>44</sup> Letter to Nicholas Lewis, Paris, July 29, 1787, in Jefferson, *Writings* (Ford), IV, 416-418; Adams, N., *South-Side View of Slavery*, 79; Shaffner, *The War in America*, 294; Smedes, *Memorials of a Southern Planter*, 48, 103; Mallard, *Plantation Life before Emancipation*, 48; *Farmers' Register*, I, 39; III, 476; *North Carolina Farmer*, III, 81; McDougle, *Slavery in Kentucky*, 13-19.

<sup>45</sup> *Ibid.*, 19-23; Stirling, *Letters from the Slave States*, 292; Mead, *Travels*, 70; Adams, N., *South-Side View of Slavery*, 77; Shaffner, *The War in America*, 292; Cobb, J. B., *Mississippi Scenes*, 90-95; Raumer, *America and the American People*, 133; Featherstonhaugh, *Excursion through the Slave States*, I, 122; Ball, *Slavery in the United States: A Narrative and Adventures of Charles Ball, Black Man*, 30-35. For a partially dissenting view, cf. Phillips, U. B., *Life and Labor in the Old South*, 158.

<sup>46</sup> *Journey in the Back Country*, 283-285.

slave auctions that families must not be separated, and many masters specified that each family should be sold as a group. Frequently Negroes were purchased for the purpose of reuniting a family.<sup>47</sup> Slaves were not customarily mistreated in the slave coffer, although the men were chained together for security. Self-interest dictated that the slave be kindly treated in order to avoid the dangers of nostalgia, attempts to escape, and the surliness that injured prospects of sale.<sup>48</sup> These were slight mitigations of one of the great evils of the system.

#### COMMERCIAL SLAVE BREEDING

There has been a great deal of controversy over the question whether the domestic slave trade was based on a plantation policy of breeding slaves, analogous to cattle breeding. The assertion that in the border States slave breeding was a recognized source of profit was frequently made by Northern or European anti-slavery writers.<sup>49</sup> Similar testimony is given also by Southern writers. Thomas Jefferson Randolph declared in the Virginia legislature, in 1832, that the State was "one grand menagerie, where men were reared for the market like oxen for the shambles."<sup>50</sup> Thomas Roderick Dew asserted:<sup>51</sup>

"The slaves in Virginia multiply more rapidly than in most of the Southern states;—the Virginians can raise cheaper than they can buy; in fact, it is one of their greatest sources of profit. In many of the other slaveholding states this is not the case, and consequently the same care is not taken to encourage matrimony and the rearing of children."

Again he says the internal slave trade "furnishes every inducement to the master to attend to his negroes, to encourage building [breeding] and to cause the greatest possible number to be raised." In another place he says, "Virginia is in fact a *negro* raising state for other states: she produces enough for her own supply and six thousand for sale." Edmund Ruffin confirmed these statements as follows:<sup>52</sup>

"The cultivators of Eastern Virginia derive a portion of their income from a source quite distinct from their tillage—and which, though it often forces them to persist in their profitless farming, yet also, in some measure conceals, and is generally supposed to compensate for its losses. This source of income is, the breeding and selling of

<sup>47</sup> Arfwedson, *United States and Canada*, I, 405; Phillips, U. B., *Plantation and Frontier*, II, 44, 56; Abdy, *Journal*, II, 178; Shaffner, *The War in America*, 294; Adams, N., *South-Side View of Slavery*, 77; Cobb, J. B., *Mississippi Scenes*, 90-95; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 396.

<sup>48</sup> Featherstonhaugh, *Excursion through the Slave States*, I, 122; Ball, *Slavery in the United States: A Narrative and Adventures of Charles Ball, Black Man*, 30-35.

<sup>49</sup> Candler, *Summary View of America*, 277; Abdy, *Journal*, II, 90; Reed & Matheson, *Narrative of the Visit to the American Churches*, II, 253; Martineau, *Society in America*, II, 41; Buckingham, *Slave States of America*, I, 182; Mackay, *Life and Liberty in America*, II, 95; Johnston, J. F. W., *Notes on North America*, II, 354; Stirling, *Letters from the Slave States*, 315; Cairnes, *The Slave Power*, 75; Russell, R., *North America, Its Agriculture and Climate*, 136.

<sup>50</sup> Quoted by Henry Wilson, *Rise and Fall of the Slave Power in America*, I, 100.

<sup>51</sup> *Review of the Debate in the Virginia Legislature of 1831 and 1832*, pp. 49, 55, 120.

<sup>52</sup> *Essay on Calcareous Manures*, 73; cf. *Farmers' Register*, I, 39; II, 253; VIII, 621. In an article published in 1859, Ruffin reiterated his denial that slaves were bred for the conscious purpose of being sold like cattle. *De Bow's Review*, XXVI, 649.

slaves—of which, (though the discussion of this point will not be undertaken here), I cannot concur in the general opinion that it is also a source of profit.

"It is not meant to convey the idea that any person undertakes as a regular business the breeding of slaves with a view to their sale; but whether it is intended or not, all of us, without exception, are acting some part in aid of a general system, which taken altogether, is precisely what I have named. No man is so inhuman as to breed and raise slaves, to sell off a certain proportion regularly, as a western drover does with his herds of cattle. But sooner or later the general result is the same. Sales may be made voluntarily, or by the sheriff—they may be made by the first owner, or delayed until the succession of his heirs—or the misfortune of being sold may fall on one parcel of slaves, instead of another: but all these are but different ways of arriving at the same general and inevitable result. With plenty of wholesome, though coarse food, and under such mild treatment as our slaves usually experience, they have every inducement and facility to increase their numbers with all possible rapidity, without any opposing check, either prudential, moral, or physical."

The dispute over the question has largely been aroused by the implication that in order to carry on slave breeding there must necessarily be a control of the marriage relation and an interference with the sexual function for purposes of profit. Some of the more radical statements imply this.<sup>53</sup> It is difficult for the present writer to understand how a scientific investigator sufficiently acquainted with ante bellum conditions could arrive at such a conclusion. A good many masters discouraged and even prohibited slaves from marrying off the plantation, for obvious reasons. There were a few instances of conscienceless masters who compelled slaves to take new mates in cases of barrenness. There was, no doubt, extensive illicit miscegenation, but that it was the basis of an extensive economic system, consciously fostered by the Southern community, is a mistaken interpretation.

On the other hand, some investigators have gone too far in trying to prove that the domestic slave trade was purely casual, consisting largely in the sale of slaves on account of financial embarrassment or in estate settlements.<sup>54</sup> Mr. W. H. Collins, for instance, employs two main lines of argument. First, he tries to show by an analysis of the ages of the slave population that the so-called buying States contained more slave children than the selling States. Second, he argues with credible ingenuity from a formidable array of figures that the rearing of slaves to working age could have yielded little or no profits considering the prices of slaves and the cost of maintaining them. The first line of argument is inconclusive because the statistics are for States rather than for economic regions within States, and even if true would not establish the hypothesis. As to the second line of argument, there may have been periods of depression when there was no profit in rearing slaves in connection with the employment of their labor, but it seems unreasonable that over a long period masters would have retained their slaves if the returns from rearing and selling slaves plus the additional returns from their labor did not equal the normal outlay in capital, labor,

<sup>53</sup> Reed & Matheson, *Narrative of the Visit to the American Churches*, II, 249; Martineau, *Society in America*, II, 320 & n.; Wilson, H., *Rise and Fall of the Slave Power in America*, I, 101; Rankin, *Letters on American Slavery*, 38; American Anti-Slavery Society, *American Slavery as It Is*, 15.

<sup>54</sup> For instance, see Ingle, *Southern Sidelights*, 294; Collins, W. H., *Domestic Slave Trade*, 74-78; cf. McHenry, *The Cotton Trade*, 15.

and risk involved. Indeed, masters were greatly concerned with the problem of increasing their slave stock by births. In estimating the expense of producing crops or in discussing their relative profitability, planters were accustomed to make allowance for increase of slave stock, and the value of a newborn child was estimated in dollars and cents.

In short, it is unnecessary to deny that the rearing of slaves constituted an important element in the agricultural economy of the South, in order to escape the exaggerated and degrading accusations of radical Abolitionists concerning the methods employed. As Weston said, "Although no one slave may be raised with a special view to his sale, yet the entire business of raising slaves is carried on with reference to the price of slaves, and solely in consequence of the price of slaves."<sup>55</sup> Given the irresponsible Negro character and the fact that the parent suffered no deprivation for the rapid increase of his progeny, a premium on breeding was unnecessary. In the early colonial period there was little practice of formal marriage among slaves. Gradually the influence of example led to the assumption of formal marriage relations. In the later ante bellum period marriage ceremonies were almost universally performed, and the formal obligations of marriage more or less consistently observed. The ceremony was performed by a white or black minister or "watchman," sometimes at the "great house," being the occasion for a celebration in which whites and blacks participated.<sup>56</sup>

On many well managed plantations there were positive, though entirely ethical, measures for encouraging the rate of increase. The partial exemption from labor during pregnancy, additions of extra food, clothing, and other comforts after childbirth,—these were powerful stimuli in the direction that coincided with the master's self-interest. On some plantations a woman with six or more healthy children was exempted from all labor. On other plantations ten children exempted the mother from field work.<sup>57</sup>

#### PRICES OF SLAVES

In the period after the Revolution there was a tendency toward a uniform level of slave prices throughout the South as a result of the domestic slave trade. The development of the Southwest was so rapid, however, that equilibrium was scarcely attained. There was normally a marked difference in level of slave prices in the border States as compared to those in the buying regions, probably in part a marketing differential corresponding roughly to the costs and risks of the trade. Phillips estimates the difference at not less than 30 per cent.<sup>58</sup> Average values for slaves deported allowed under the Ghent Treaty were said to be \$580 for Louisiana, \$390 for Georgia, South Carolina, and Alabama,

<sup>55</sup> *Progress of Slavery in the United States*, 148.

<sup>56</sup> Mallard, *Plantation Life before Emancipation*, 47-53; Adams, N., *South-Side View of Slavery*, 82-88; Shafiner, *The War in America*, 294; Smedes, *Memorials of a Southern Planter*, 55, 78; Brickell, *Natural History of North Carolina*, 274; Reck, *Extracts of Journals* (Force, Tracts, IV, No. 5), p. 9; Morgan, C. V., "Slavery in New York," in *Amer. Hist. Assn., Papers*, V, 343; Moore, G. H., *Slavery in Massachusetts*, 57; Edwards, *British West Indies*, II, 80; McDougale, *Slavery in Kentucky*, 75-78.

<sup>57</sup> Kemble, *Journal of a Residence on a Georgian Plantation*, 59.

<sup>58</sup> *American Negro Slavery*, 201. See also curves for different markets in chart opposite page 370 of the same book.

and \$280 for Virginia, Maryland, and all other States. Part of the contrasts probably represented differences in age and sex composition.<sup>59</sup>

After the domestic slave trade became well established, the price of slaves in Virginia and Maryland tended to be determined by prices in the Southwest, rather than by what Virginia and Maryland planters could afford to pay for use at home. Slave prices were strongly influenced by the rise and fall in cotton prices.<sup>60</sup> In the earlier years of the nineteenth century there was a belief that slaves should rise \$100 for each increase of 1 cent in price of cotton above cost of production. Moreover, prices of the minor staples, especially sugar, influenced slave prices, which were also affected by changes in the money market. Robert Russell observed in 1857 that the average price of slaves in Charleston had fallen  $33\frac{1}{3}$  per cent within two months, due to sudden tightness in the money market.<sup>61</sup> In general, movements of slave prices were less extreme than movements of cotton prices, and usually lagged behind the latter by two or three years. Sometimes the lag was so great that a peak price for slaves coincided with a low point in the curve of cotton prices.<sup>62</sup>

The geographic adjustment in the level of slave prices was not so instantaneous as in the present arbitrating of wheat and cotton, for market organization was far less complete. At times a considerable rise or fall in local prices of slaves occurred which did not correspond with the general level. When slave prices in the Southwest advanced rapidly in periods of speculative activity, such as 1808–1810, 1828–1837, and 1856–1860, there was an increased lag in the adjustment of Virginia prices and a consequent widening of the differential.<sup>63</sup>

Prices of individual slaves differed according to variations in age, sex, physical condition, temperament, skill, and experience. Ordinarily, women and girls sold for less than men and boys of corresponding ages. Generally speaking, a prime male hand sold for about 25 per cent more than a prime female hand. Newly imported Negroes were worth considerably less than those who had been reared in the country. In 1819 the Louisiana price of an African, or "brute negro," was from \$400 to \$500, while an active and intelligent domestic Negro would bring \$1,000.<sup>64</sup> Skilled artisans or unusually attractive females frequently commanded prices from two to three times those of ordinary field hands. Male slaves were considered most valuable between eighteen and thirty years of age. Females reached their prime a little earlier. After thirty the slave was for a number of years no less efficient than formerly, and his rate of hire did not decline, but his price was lower because of decreasing expectation of life. Old persons might be worth less than nothing, and sometimes a larger price was offered for a round lot of slaves on condition that the old and helpless slaves be excluded. In 1859 infants were valued at from \$7 to \$10 a pound. In Barbados, about 1654,

<sup>59</sup> *Virginia Herald* (Fredericksburg), May 24, 1828.

<sup>60</sup> *Farmers' Register*, II, 763; Mills, *Statistics of South Carolina*, 492. Concerning the relationship of cotton prices and slave prices, see chart opposite page 370 in U. B. Phillips' *American Negro Slavery*.

<sup>61</sup> *North America, Its Agriculture and Climate*, 162. For a similar tendency in 1833–34, see *Niles' Register*, XLV, 373.

<sup>62</sup> See Phillips, U. B., *Life and Labor in the Old South*, 177–179.

<sup>63</sup> See chart opposite page 370 in U. B. Phillips' *American Negro Slavery*.

<sup>64</sup> Warden, *Account of the United States*, II, 437, 546.

a Negro child on the first day after birth was valued at £5 sterling. Sometimes the rule was to value an infant at a year's service of the mother, who usually worked at least three fourths of the period of pregnancy. Boys and girls were sometimes priced in the market according to height or weight. In general the average price of slaves appears to have been about 40 to 50 per cent of the value of prime field hands.<sup>65</sup> Prices by sex, age, and condition are illustrated by the following list submitted about 1853 by a slave broker of Richmond, Virginia:<sup>66</sup>

Best men (18-25 years).....	\$1,200 to \$1,300
Fair men (18-25 years).....	950 to 1,050
Boys, five feet in height.....	850 to 950
Boys, four feet, eight inches.....	700 to 800
Boys, four feet, five inches.....	500 to 600
Boys, four feet.....	375 to 400
Young women.....	800 to 1,000
Girls, five feet in height.....	750 to 850
Girls, four feet, nine inches.....	700 to 750
Girls, four feet.....	350 to 450

The general trends in the movement of slave prices are shown by curves constructed by Phillips, based on the average prices of prime male field hands derived from some thousands of cases of bills of sale, compensation for criminal executions, and other primary materials. Phillips concludes that there was probably a downward trend for about twenty years following the beginning of the Revolutionary War, temporarily interrupted by a sharp speculative increase just after the war.<sup>67</sup> Outside of the Colonies values were probably maintained at about the same level as in the years preceding the war until after the invention of the cotton gin.<sup>68</sup> As late as the close of the eighteenth century prices for prime field hands in South Carolina were from \$300 to \$350, for common male hands \$200, and for a common Negress \$150.<sup>69</sup>

From about the period of the invention of the cotton gin until just before the outbreak of the War of 1812 the rapid expansion of the cotton industry resulted in a steady rise in slave prices, although the increase was retarded somewhat by continued importation. The prices of prime field hands in Virginia rose from less than \$300 to about \$500, but in South Carolina and Georgia they averaged about \$100 more than in Virginia, and in the highly speculative market of New

<sup>65</sup> Whistler, *Extracts from Journal of the West India Expedition* (Venables, Narrative), 146; Monette, *Discovery and Settlement of the Mississippi Valley*, I, 227; Edwards, *British West Indies*, II, 126 n., 128 n.; Pinckard, *Notes on the West Indies*, II, 457; Janson, *The Stranger in America*, 358; Singleton, *Letters from the South and West*, 79; *Southern Cultivator*, XVI, 273; Russell, W. H., *My Diary North and South*, I, 244, 373; McDonogh, *Papers* (Edwards), 66; *Southern Agriculturist*, III, 599; Gosse, *Letters from Alabama*, 254; *American Farmer*, 1 series, X (1828-9), p. 273; Chambers, *American Slavery and Colour*, 148, 207; cf. Brackett, *The Negro in Maryland*, 147; Phillips, U. B., "Economic Cost of Slaveholding in the Cotton Belt," in *Political Science Quarterly*, XX, 262-265; *idem*, *American Negro Slavery*, 370; *idem*, *Life and Labor in the Old South*, Chap. X; Turner & Bridges, *Edgecombe County*, 177.

<sup>66</sup> Chambers, *Things as They Are in America*, 277. For other typical lists, see *Louisiana Historical Quarterly*, VII, 302; *The Courier* (New Orleans), Feb. 18, 1860.

<sup>67</sup> See *American Negro Slavery*, 366, 368, 370-375; reprinted also in *idem*, *Life and Labor in the Old South*, 177. Numerous prices for this period are cited in Turner & Bridges, *Edgecombe County*, 176-178.

<sup>68</sup> Edwards, *British West Indies*, I, 234; II, App., p. 484; Washington, *Letters on Agriculture*, 69; Phillips, U. B., "Public Archives of Georgia," in *Amer. Hist. Assn., Annual Report*, 1903, I. 453; Claiborne, J. F. H., *Mississippi*, 144; La Rochefoucauld, *Travels*, II, 410, 440.

<sup>69</sup> *Ibid.*, 410. Concerning the prices in Louisiana about the beginning of the nineteenth century. see above, p. 337.

Orleans advanced between 1808 and 1810 to a maximum of nearly \$900. The commercial troubles just preceding the outbreak of the War of 1812 led to a violent drop of more than \$300 in the New Orleans market and lesser declines in the older planting States, but before the advent of peace prices started upward again.<sup>70</sup>

In the speculative fever that culminated in 1819, the prices of prime field hands in the old slave regions rose as high as \$800 to \$1,200 and in the new regions as high as \$1,700 to \$2,000 in exceptional cases. Phillips' averages indicate a maximum average in 1819 of about \$1,100 in the New Orleans market and about \$700 in the Virginia market. Yet, slaves in the West Indies, who could not be legally imported into the United States, were worth only £50 to £80 sterling apiece.<sup>71</sup> The disastrous panic of 1819 brought a rapid decline, which continued until 1823 in the New Orleans and Georgia markets, when the higher prices for the crops of 1823 and 1824 caused a temporary advance. The recovery was too brief to affect the basic price level of slaves in South Carolina and Virginia, and the low prices of slaves that followed 1819 continued for about ten years, culminating in the depression of the last years of the third decade. Prices of prime field hands in the older regions fell as low as \$350 to \$450.<sup>72</sup>

About 1830 in Virginia and several years earlier in the Southwest there began a steady rise in slave prices, increasing rapidly during the period of intense speculative activity from 1835 to 1837, when average prices were \$1,000 to above \$1,200 for prime field hands.<sup>73</sup> After the crash of 1837 slave prices started downward, recovered a little as a result of the higher cotton prices for the crop of 1838, and then declined steadily until 1844 or 1845, when prices of slaves fell nearly to the level of 1830. In Tennessee, for instance, average values reported biennially by tax assessors decreased from \$584 in 1836 to \$414 in 1846.<sup>74</sup>

About the middle of the fifth decade slave prices started upward in a movement that continued with increasing momentum until 1860, reaching a higher level than at any previous time. In Tennessee, for instance, the average reported values increased from about \$414 in 1846 to \$689 by 1856.<sup>75</sup> Just prior to the Civil War slaves of all ages in the Southwest probably averaged about \$600. Prime field hands sold for \$1,500, \$1,800, and \$2,000, and in 1860 reached an average of \$1,800.<sup>76</sup>

<sup>70</sup> Phillips, U. B., *American Negro Slavery*, chart facing p. 370. For earlier lists of slave prices, see *idem*, "Economic Cost of Slaveholding in the Cotton Belt," in *Political Science Quarterly*, XX, 267; *idem*, "Slave Labor Problem in the Charleston District," in *Political Science Quarterly*, XXII, 436-437. Concerning this period, see Ramsay, *History of South Carolina*, II, 541.

<sup>71</sup> Phillips, U. B., *American Negro Slavery*, chart facing p. 370, and also lists of slave prices in publications cited above; Pinckard, *Notes on the West Indies*, II, 457; Warden, *Account of the United States*, II, 437; III, 17; Fearon, *Sketches of America*, 236; Claiborne, J. F. H., *Mississippi*, 144.

<sup>72</sup> *American Farmer*, 1 series, X (1828-9), p. 273; Dew, *Review of the Debate in the Virginia Legislature of 1831 and 1832*, p. 47; cf. also lists prepared by Professor U. B. Phillips.

<sup>73</sup> Phillips, U. B., *American Negro Slavery*, chart facing p. 370; *Southern Agriculturist*, X, 172; XI, 243; *Farmers' Register*, V, 294.

<sup>74</sup> Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856-1857, p. 25.

<sup>75</sup> *Loc cit.*

<sup>76</sup> *De Bow's Review*, I, 481; VII, 435; XXI, 539; XXII, 201, 439; XXV, 493; XXVI, 446; XXVIII, 354; *Southern Planter*, XVII, 80, 639; *Hunt's Merchants' Magazine*, XXX, 499; XLI, 774; *Southern Cultivator*, II, 31; XV, 148; Weston, G. M., *Progress of Slavery in the United States*, 117; Buckingham, *Slave States of America*, I, 235; Phillips, U. B., *Plantation and Frontier*, I, 136-139, 171; II, 33, 72. Address of Honorable Edward Bates, in Missouri State Agricultural Society, *Report of the Proceedings of the Third Annual Fair*, 11; Russell, R., *North America, Its Agriculture and Climate*, 140, 180.



In this last speculative movement, as Phillips has shown, the prices of slaves advanced much higher in relation to the prices of cotton than in earlier periods of peak prices. Thus, in terms of cents of cotton to hundreds of dollars in average slave prices in New Orleans, the ratio was nearly 4 to 1 in 1805, a little over 2 to 1 in 1819, 1 to 1 in 1837, but only about 0.6 to 1 in 1860. It is probable that speculation had carried slave prices temporarily beyond their normal ratio to cotton prices, but, as already noted, it is also probable the relationship itself had changed over the period of sixty years by reason of increasing efficiency in methods of employing labor and the increasing scarcity of labor.<sup>77</sup> In 1860 cotton and sugar were no longer the sole competitors for slaves, for these commodities were encountering the active competition of a revived and increasingly diversified industry in the border States.<sup>78</sup>

#### RATES OF HIRE

Annual rates of hire for slaves also tended upward during the ante bellum period, with probably less extreme fluctuations than in the case of the more speculative capital values. "While the purchase price of slaves was well nigh quadrupled in the threescore years of the nineteenth century, slave wages were little more than doubled."<sup>79</sup> About 1792 Jefferson estimated the hire of a force of field hands made up of equal proportions of men and women at £16 sterling apiece per annum besides their keep, which he estimated at £6. This was admitted by Jefferson to be a very liberal estimate, and in the same correspondence it came out that near Charlottesville, Virginia, a Negro man could be hired at £9 besides his food and clothing.<sup>80</sup> About the same time a Virginia advertisement for women laborers to stem tobacco offered 18 shillings a month. In January, 1797, the city of Washington advertised for laborers at \$70 per year and found with everything, including medical attention.<sup>81</sup> In 1836 Negro men in Virginia could be hired for \$80 to \$90 per annum; in 1837 a Negro man for work in tobacco fields was hired for \$80 per year, and including the cost of food and clothing, at \$92. The following year, in Amherst County, Virginia, Negro laborers could be hired at \$60 per year. In 1848 it was still about the same.<sup>82</sup> The development of increased demand for the use of Negro labor in the border States during the last decade of the period resulted in an advance in rates of hire. In 1857 male field hands in Virginia brought \$120 to \$150 per year and board, and in Kentucky \$175. The advance from this time until 1860 was notable. About the beginning of 1856 wages paid by Virginia tobacco factories advanced about 15 per cent. In 1860 Petersburg tobacco factories were forced to pay \$225 per year.<sup>83</sup>

<sup>77</sup> See above, p. 476.

<sup>78</sup> See below, p. 913.

<sup>79</sup> Phillips, U. B., *American Negro Slavery*, 410; cf. *Farmers' Register*, II, 253.

<sup>80</sup> Washington, *Letters on Agriculture*, 58, 67, 69. See also statistics of comparative wages of slave and free labor, above, p. 469.

<sup>81</sup> *Virginia Herald and Fredericksburg Advertiser*, Mar. 31, 1791; *Washington Gazette* (District of Columbia), Jan. 7-11, 1797.

<sup>82</sup> *Farmers' Register*, III, 711; IV, 743; V, 8; *Southern Planter*, VIII, 110.

<sup>83</sup> Russell, R., *North America, Its Agriculture and Climate*, 136; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 547; Phillips, U. B., *American Negro Slavery*, 410.

In the buying States slave wages tended to be somewhat higher than in selling States and more nearly adjusted to capital values. In middle Georgia, according to Phillips, wages of prime male hands "ranged about \$100 in the first decade of the nineteenth century, dropped to \$60 or \$75 during the war of 1812, and then rose to near \$150 by 1818." In the third decade they were commonly between \$100 and \$125. By 1838 canal contractors were forced to offer \$18 a month, besides board, clothes, and medical attention.<sup>84</sup> About 1825 reports from various counties of South Carolina indicated that the hire of male field hands ranged from \$80 to \$100, with a few choice hands bringing as high as \$120. About 1838 the hire of hands in South Carolina was placed at about \$100. In 1851 good field hands in Darlington County were hiring for \$100 to \$150, which was considered very high.<sup>85</sup> By 1855 they were being hired in the Southwest for \$200 per year, and in 1860 a parcel of slaves in northwestern Louisiana hired for \$300 to \$360 each.<sup>86</sup>

#### AGITATION FOR REOPENING THE SLAVE TRADE

Increasing scarcity of slave labor and the resulting rise in slave prices and rates of hire stimulated an active agitation for reopening the slave trade, a movement that was a phase of the growing sense of economic sectionalism.

As early as 1855 a resolution for reopening the slave trade was offered at the New Orleans convention, but the resolution was not reported out of committee.<sup>87</sup> When Olmsted wrote his *A Journey in the Back Country*, he reported that among the rank and file of the people the question was still whether the proposition should be discussed, rather than whether it should be adopted. Nevertheless, the movement was gaining ground, and the radical leaders rallied to its support.<sup>88</sup> The question was recommended to the consideration of the South Carolina legislature in 1856, but was laid on the table. At the Savannah commercial convention in 1856, the proposal was introduced by a special message from Governor Adams, of South Carolina. The general sentiment was that the proposal was politically inexpedient, but the subject was referred to a special committee with instructions to report the following year.<sup>89</sup> In the Knoxville convention a resolution was passed in favor of urging the Federal Government to repudiate the provisions of the treaty for the patrol on the African coast. A resolution for investigation of the reopening of the slave trade was lost by a narrow margin; but a committee was appointed to report the following year.<sup>90</sup> At the Montgomery convention in 1858 the committee reported favorably. The border States headed the opposition. It was alleged by supporters of the measure that this

<sup>84</sup> Phillips, U. B., *American Negro Slavery*, 409.

<sup>85</sup> Mills, *Statistics of South Carolina*, 489-782, *passim*; *Southern Agriculturist*, XI, 243; *Farmer and Planter*, II, 54.

<sup>86</sup> Address of Honorable Edward Bates, in Missouri State Agricultural Society, *Report of the Proceedings of the Third Annual Fair*, 11; Phillips, U. B., *American Negro Slavery*, 410.

<sup>87</sup> *De Bow's Review*, XVIII, 628.

<sup>88</sup> Pages 361-373; editorial in *De Bow's Review*, XXVI, 51.

<sup>89</sup> *Ibid.*, XXII, 81 *et seq.*, 216-224; XXVII, 364. Concerning the division of opinion in South Carolina, see Van Deusen, *Economic Bases of Disunion in South Carolina*, Chap. VIII.

<sup>90</sup> *De Bow's Review*, XXIII, 303-320.

opposition was due to the self-interest of "slave-breeding states." Whatever the motive, however, the opposition succeeded in defeating definite action.<sup>91</sup>

Almost the entire time of the Vicksburg convention in 1859 was devoted to a bitter discussion of the slave trade. The most radical element, the "Repealers," advocated the repeal of all antislave-trade laws; the "Adjudicators" proposed to agitate in order to induce the Supreme Court to reconsider the constitutionality of slave-trade acts. The "Nullifiers" wished to abrogate the slave-trade laws on the ground that they were unconstitutional. The Progressive States Rights Men urged a system of importation as apprentices, analogous to that employed in the coolie trade. The convention finally adopted a resolution that, "All laws, State or Federal, prohibiting the African slave trade, ought to be repealed."<sup>92</sup>

Just after adjournment the African Labor Supply Association was formed with J. D. B. De Bow president. The objects of the association were not definitely stated in the constitution, but De Bow asserted in an open letter to William L. Yancey that the principal immediate object was to agitate the question, and possibly to take steps to test the constitutionality of the importation of Negroes as apprentices.<sup>93</sup> Although the movement had gained ground rapidly, it was a stock argument of the opposition forces at the Vicksburg convention that the movement was not widely supported by Southern sentiment, and that no Southern legislature had taken definite action.<sup>94</sup>

<sup>91</sup> *Ibid.*, XXIV, 473-491. For typical border-State arguments against the proposal, see *North Carolina Planter*, II, 257.

<sup>92</sup> *De Bow's Review*, XXVII, 97, 99; cf. *ibid.*, 214-220, 470.

<sup>93</sup> *Ibid.*, XXVII, 231-235; *Farmer and Planter*, V, 199.

<sup>94</sup> *De Bow's Review*, XXV, 166.



PART VI

AGRICULTURAL INDUSTRIES AND HUSBANDRY  
IN THE POST COLONIAL PERIOD



## CHAPTER XXIX

### BEGINNINGS OF THE COTTON INDUSTRY, 1785-1814

Varieties in Cultivation before the Introduction of Sea-Island Cotton, 673. Beginnings of the Sea-Island Cotton Industry, 675. Conditions Favoring Early Development of the Short-Staple Industry, 678. Early Progress of the Sea-Island Cotton Industry, 679. Invention of Ginning Machinery for Short-Staple Cotton, 680. Prices of Upland Cotton, 1790-1814, 681. Expansion of the Upland Cotton Industry in the Appalachian Piedmont, 683. Development of Cotton Production in the Border States before 1815, 686. Early Expansion in the Lower Mississippi Valley, 687. Early Methods of Cultivation, 689.

#### VARIETIES IN CULTIVATION BEFORE THE INTRODUCTION OF SEA-ISLAND COTTON

Cotton is a vegetable fiber attached to the seeds of various species of the genus *Gossypium*. There is a considerable diversity in classification, but for purposes of industrial history five species may be recognized: *G. Barbadosense*, *G. Brazilianum* (or *G. Peruvianum*), *G. Hirsutum*, *G. Herbaceum*, and *G. Arboreum*. The last named species—a tree cotton—is of no commercial importance. The first two are characterized by long fiber easily separable from the smooth seeds. *G. Barbadosense* originated as a commercial product in the West Indies, although probably descended from or related to *G. Arboreum*. It is the species to which belongs the long-staple, silky-fibered, smooth-seeded cotton known as sea-island. *G. Brazilianum* is a South American species, of minor commercial importance. *G. Hirsutum* and *G. Herbaceum* are characterized in general by short staple and seeds to which the fiber adheres tenaciously.<sup>1</sup> The varieties grown in the Colonies probably were derived from crossing *G. Barbadosense* and *G. Herbaceum*, and possibly also *G. Hirsutum*. The result seems to have been a type known as "green seed," the lint of which adheres very closely to the seed.<sup>2</sup> There were also varieties in the Colonies characterized by smooth, black seeds and comparatively long staple, probably related to *G. Barbadosense*.

The growth of cotton, as we have noted, was an object of experimentation in the earlier years of the various Colonies, beginning at Jamestown in 1607. Throughout the colonial period it was cultivated both in the English Colonies and in Louisiana, mainly for domestic uses, though small quantities from time to time were sent abroad. Varieties had been introduced into the American Colonies at different times from many parts of the world. Cotton seed, as we have noted, had been brought from Cypress and Smyrna as early as 1682.<sup>3</sup> Nankeen cotton had been brought from China, and after the Revolution Washington and Jefferson were experimenting with it. It was widely employed in the back country of the Carolinas and Georgia for domestic use because the yellow color made it unnecessary to employ a dye. The French in Louisiana had experi-

<sup>1</sup> Chapman, S. J., article on "Cotton," in *Encyclopaedia Britannica*, 11th edit., 256-258; Ellison, *Hand-Book of the Cotton Trade*, 2.

<sup>2</sup> United States, Dept. Agric., *The Cotton Plant* (Exp. Stations, *Bulletin* 33), p. 73.

<sup>3</sup> See above, pp. 15, 25, 54, 77. See also Hammond, M. B., *Cotton Industry*, 4-6, and the references he cites to colonial cultivation.

mented between 1786 and 1795 with white Siam cotton and also with Nankeen cottons.<sup>4</sup> The Pernambuco cottons had been brought from Brazil, and Bourbon cottons from the West Indies are alleged to have been the source of the sea-island cotton, although Bourbon was also grown in the uplands.<sup>5</sup>

The puzzling thing is why cotton had not earlier attained commercial importance. One of the stock explanations has been the difficulty of separating seed from lint. For instance, Professor M. B. Hammond, while attributing some importance to the fact that demand in the mother country had not largely developed, lays principal emphasis on the fact that the only kinds cultivated in the American Colonies were the short-staple cottons with closely adhering lint. He argues that commercial cultivation was impracticable under the slow methods of separating the seed until the invention of Whitney's saw gin, whereas the smooth-seed, or sea-island, variety was not introduced until 1785 or 1786. Yet, in editing the letters of Eli Whitney, published in the same year, Professor Hammond recognizes that black smooth-seed varieties had been cultivated "almost since the first settlement of the country."<sup>6</sup>

There is abundant evidence of the widespread cultivation of the smooth-seed species and its separation from the seed by the "churka," or roller gin, long before either the invention of the saw gin or the beginning of the sea-island industry. Before the Revolutionary War, as we have noted, roller gins were more or less employed from Virginia to Florida.<sup>7</sup> The editor of the official letters of Governor Spotswood asserts that black-seed cotton was the kind principally cultivated in Virginia before the Revolutionary War.<sup>8</sup> Timothy Pickering, writing of his observations in that State during the Revolution, declared that rich soil would produce 2,000 pounds of seed cotton per acre which, when ginned, yielded 500 pounds.<sup>9</sup> Kinsey Burden, a pioneer in developing the sea-island industry, declared that his father was cultivating both black-seed and green-seed cotton as early as 1778 or 1779, and soon constructed a roller gin of pieces of burnished iron gun barrels, which he employed to gin cotton for family use. It was Burden's impression that this was the first roller gin in South Carolina.<sup>10</sup> In 1799 a writer who signed himself "an Inhabitant of Chatham county" (Georgia), declared that "the same kind of cotton as is now cultivated on the Sea Islands" had long been raised on Skidway Island for domestic use, by practically every family. In 1767 it was planted by one John Earle as a crop. About 1783 some of this variety had been exported to England by Major Deveaux, and "yielded him a handsome profit." Some of that writer's contemporaries recalled that before 1767 cotton was an article of commerce purchased by the mercantile firm of Smith and Gordon. That it was not more generally cultivated he attrib-

<sup>4</sup> Letter from Washington to his manager, Mr. Pearce, Mar. 16, 1794, in Long Island Historical Society, *Memoirs*, IV, 52; Jefferson, *Farm Book*, 95 (Photostat copy, Library of Congress); De Bow, *Industrial Resources*, I, 120.

<sup>5</sup> *Southern Agriculturist*, III, 174; new series, IV, 128-131.

<sup>6</sup> *Cotton Industry*, 6-12; *American Historical Review*, III, 91.

<sup>7</sup> See above, p. 183.

<sup>8</sup> *Official Letters*, I, 165 n.

<sup>9</sup> Pickering, *Timothy Pickering*, I, 299 n.

<sup>10</sup> *Southern Agriculturist*, new series, IV, 161-163.



uted to the superior profitableness of rice and indigo.<sup>11</sup> Gins, probably of a roller type, were being employed in Philadelphia shortly after the Revolution to gin cotton shipped thither from other Colonies.<sup>12</sup>

There is even some reason for believing the roller gin had been adapted to ginning green-seed cotton. In his account of Florida, published in 1775, Romans declared that the cotton most generally grown was *Gossypium Anniversarium* or *Xylon Herbaceum*, otherwise known as green-seed cotton. Describing the method of cultivating this cotton up to the point of ginning, he declared:<sup>13</sup>

"It must now be carried to the mill of which take the following description.

"It is a strong frame of four studs, each about four feet high and joined above and below by strong transverse pieces; across this are placed two round well polished iron spindles, having a small groove through their whole length, and by means of treddles are by the workman's foot put in directly opposite motions to each other; the workman sits before the frame having a thin board, of seven or eight inches wide and the length of the frame, before him; this board is so fixed to the frame that it may be moved, over again, and near the spindle; he has the cotton in a basket near him, and with his left hand spreads it on this board along the spindles which by their turning draw the cotton through them being wide enough to admit the cotton, but too near to permit the seed to go through, which being thus forced to leave the cotton in which it was contained, and by its rough coat entangled; falls on the ground between the workman's legs while the cotton drawn through falls on the other side into an open bag suspended for that purpose under the spindles.

"The French in Florida have much improved this machine by a large wheel, which turns two of these mills at once, and with so much velocity as by means of a boy, who turns it, to employ two negroes at hard labour to shovel the seed from under the mill: One of these machines i saw at Mr. Krebs at Pasca Oocooloo [Pascagoula], but as it was partly taken down, he claiming the invention was very cautious in answering my questions, i cannot pretend to describe it accurately; i am informed that one of those improving mills will deliver seventy or eighty pounds of clean cotton *per diem*."

Just after the Revolution the roller gin was being used by James Kincaid, of Fairfield District, to gin green-seed cotton collected from his neighbors, and after ginning shipped to Charleston.<sup>14</sup>

#### BEGINNINGS OF THE SEA-ISLAND COTTON INDUSTRY

Various accounts attribute the beginnings of the sea-island cotton industry to the year 1786-87, but there has been considerable controversy as to what persons deserve the credit. The claim is made that one Frank Levett, formerly connected with the New Smyrna colony in Florida, was the father of the industry. Levett, a Tory rice planter in Georgia, fled to the Bahamas, but returned to Georgia, probably in the year 1784-85. In 1786 he received from Patrick Walsh, a seed collector then travelling in South America, three large bags of cotton seed from Pernambuco. Apparently the value of the gift was not appreciated, for

<sup>11</sup> Letter of Oct. 15, 1799, to the *Columbian Museum and Savannah Advertiser*, reprinted in *Georgia Historical Quarterly*, I, 40.

<sup>12</sup> Extract from letter of Richard Leake to Thomas Proctor, Dec. 11, 1788, reprinted in *Niles' Register*, VI, 334; De Bow, *Industrial Resources*, I, 122.

<sup>13</sup> *East and West Florida*, 140.

<sup>14</sup> Johnson, W., *Nugae Georgicae*, 17.

Levett, finding need for the sacks in gathering provisions, shook the seeds out on the dunghill. They sprouted, and in the spring a multitude of plants covered the place. These he transplanted the next year and continued their cultivation subsequently.<sup>15</sup> This account was confirmed in its main details by a letter of William W. Parrott, a merchant of Gloucester, Massachusetts, who obtained the story in 1807 from Levett's widow. Parrott asserted that Levett had sent samples of the cotton to the firm of Simpson and Davison in London, who sold it at a high price, finding the manufacturers clamorous for more. This news they transmitted to their correspondents in Georgia.<sup>16</sup> Levett's claim, at least that he was the first to grow the crop on a large scale for export, was further supported by the writer, already quoted, who signed himself "an Inhabitant of Chatham county." He declared that after indigo was found unprofitable, planters on Skidway Island were encouraged to turn to cotton by reason of a "crop of black seed cotton from seed procured from Major Barnard on Wilmington Island which was raised on the Island of Skidaway, 10,000 lbs. of which crop was shipped to England in the spring of 1791 by Messrs. Johnston and Robertson on account of Francis Levett, Esq., which established the character of Georgia sea island cotton; being the first shipment of any consequence."<sup>17</sup>

Levett's claim was vigorously disputed by Thomas Spaulding, a prominent planter of Sapello Island, Georgia, who asserted that sea-island cotton had been grown on this island by Alexander Bisset in 1778. Probably by reason of the war its commercial production was not generally adopted. Spaulding further claimed that "in the winter of '86" several persons on the Georgia coast, including Alexander Bisset, Governor Tatnall, and Mr. James Spaulding, received parcels of cotton seed from friends in the Bahamas. This seed had been sent thither by the Board of Trade from Anguilla as a means of aiding Loyalist refugees. Spaulding asserted that Levett did not receive the Pernambuco seed until 1794 or 1795, and that although the Pernambuco cotton bore well and was easily separated from the seed, it was inferior to the Bahama variety and was soon displaced by the latter.<sup>18</sup>

Spaulding's account has been accepted by many writers; but in addition to its conflict with the Levett claim there are other conflicting claims made by Richard Leake and by Nicholas Turnbull, son of the Andrew Turnbull who founded the unsuccessful colony at New Smyrna. In a letter written in 1788 Leake said, "I have been this year an adventurer (and the first that has attempted it on any

<sup>15</sup> This claim was set forth in a letter written by Walsh in 1805 from Havana to John Couper, a prominent planter of St. Simon's Island, Georgia. Couper gave the letter to a Dr. Mease, who sent it to the *American Farmer*, nearly a quarter of a century later, where it was published. 1 series (1830-2), XII, 335; XIII, 107.

<sup>16</sup> Massachusetts Historical Society, *Proceedings*, III, 222.

<sup>17</sup> Letter of Oct. 15, 1799, to the *Columbian Museum and Savannah Advertiser*, reprinted in *Georgia Historical Quarterly*, I, 41.

<sup>18</sup> Letter of Thomas Spaulding to W. B. Seabrook, Jan. 20, 1844, published in *Southern Agriculturist*, new series, IV, 107, and reprinted in Turner, J. A., *Cotton Planter's Manual*, 282. Spaulding's first letter was sent to the *Savannah Georgian* and is reprinted in U. B. Phillips' *Plantation and Frontier*, I, 266-271. The controversial discussion appears in *American Farmer*, 1 series, XIII (1831-2), p. 107; *Southern Agriculturist*, IV, 131-133, 242-245; new series, IV, 128-131. See also *Farmers' Register*, II, 355; Hammond, M. B., *Cotton Industry*, 17; Halle, *Baumwollproduktion*, I, 24; Watkins, *King Cotton* 95; De Bow, *Industrial Resources*, I, 121; Phillips, U. B., *American Negro Slavery*, 152.

large scale) in introducing a new staple."<sup>19</sup> As early as November 28, 1799, Nicholas Turnbull wrote in the *Georgia Gazette* that since 1787 he had claimed to be "the first founder and introducer of cotton planting since the Revolution." He declared that John Earle, of Skidway Island, while in the employ of his father in Florida, communicated to him the results of his five years' experiments in growing cotton. This stimulated in Nicholas Turnbull an earnest desire to undertake its cultivation. On removing to Georgia he requested his friend, Josiah Tatnall, Jr., to procure him some seed, a quart of which he obtained with some difficulty from John Smith, of South Carolina. Turnbull planted the seed in the Spring of 1789. Finding it produced beyond expectation, he decided to increase the acreage, distributing some of the seed also to other planters.<sup>20</sup>

These conflicting statements appear to suggest that in the same year a number of persons on the Georgia coast received samples of sea-island cotton from the Bahamas and that this circumstance was connected with the settlement of Georgia and South Carolina Loyalist refugees in those islands. There was also a connection between the starting of the new industry and earlier experiments in the New Smyrna colony, of which Levett and Nicholas Turnbull had been residents.<sup>21</sup>

It is probable that the Bahama strains were greatly superior to the black-seeded cottons already in cultivation in the English Colonies. The latter were not necessarily confined to the neighborhood of the sea, but appear to have been grown both on the coast and in the uplands. It is possible that the so-called "Santee" cottons were of this type.<sup>22</sup> The black-seed varieties differed from the sea-island in color of blossom, size and form of boll, and length and fineness of staple. Because of its liability to the rot, the black-seed type was probably superseded in the uplands about 1800-1810 by the down-covered green-seed cotton.<sup>23</sup> In 1803-1805 the black-seeded upland was regularly quoted in the Charleston market. When ginned on the roller gin it was not so greatly inferior in price to sea-island cotton, but when ginned on the crude saw gins it was subject to a heavy discount. For the year 1803 the average monthly quotations were as follows: upland black-seed cotton roller-ginned, 45 cents; the same saw-ginned, 27 cents; upland green-seed saw-ginned, 17 cents; "common upland," 25 cents; best Carolina sea-island, 48 cents; best Georgia sea-island, 50 cents; "Mississippi," usually 20 cents; "Carolina stained," 25 cents.<sup>24</sup> It is possible that the ordinary black-seed varieties were less easily separated from the seed than the sea-island varieties because they had developed more or less tufts of fuzz on the seeds. Studies of Egyptian cotton, which, like sea-island, is a descendant of the species *Gossypium Arboreum*, show that it has a recessive character that causes it in time to develop fuzzy tufts on the seeds.<sup>25</sup> Both Whitmarsh Seabrook and Thomas

<sup>19</sup> Letter to Thomas Proctor, Dec. 11, 1788, in *Niles' Register*, VI, 334; *Farmers' Register*, II, 355.

<sup>20</sup> Reprinted in *Georgia Historical Quarterly*, I, 39, 42-45.

<sup>21</sup> Letter of William Parrott, in Massachusetts Historical Society, *Proceedings*, III, 222.

<sup>22</sup> Ravenel, D., "Historical Sketch of the Huguenot Congregations of South Carolina," in Huguenot Soc. of S. C., *Transactions*, No. 7, pp. 39-41.

<sup>23</sup> Watkins, *King Cotton*, 73, 99, 161, 164.

<sup>24</sup> Averages of from seven to nine monthly quotations for each class, published in *Charleston Courier*, issues for 1803, *passim*.

<sup>25</sup> Kearney & Harrison, "Inheritance of Smooth Seeds in Cotton," in *Journal of Agricultural Research*, XXXV, 193-217.

Spaulding declared that the black-seed employed in the English Colonies was clean and black, except for carrying a tuft at the end.<sup>26</sup>

#### CONDITIONS FAVORING EARLY DEVELOPMENT OF THE SHORT-STAPLE INDUSTRY

The rise of the short-staple cotton industry was stimulated by the sudden increase in market demand growing out of the textile inventions and development in England. The demand for cotton had expanded but slowly during the first half of the eighteenth century. From 1701 to 1705 inclusive annual imports of Great Britain averaged only a little more than 1,000,000 pounds, and there was but little increase before the middle of the century. From 1771 to 1775 British imports averaged less than 5,000,000 pounds, and in the five years 1776 to 1780 the average was less than 7,000,000. The textile inventions led to a sudden expansion of imports to nearly 12,000,000 in 1784, over 18,000,000 in 1785, over 23,000,000 in 1787, and an average of 26,000,000 from 1791 to 1795 inclusive. By 1800 they had increased to 56,000,000.<sup>27</sup>

The earlier demand had been adequately satisfied by imports from the West Indies, the Isle of Bourbon, the Levant, and Brazil; and prices received had apparently not been such as to stimulate great expansion. According to Tench Coxe, for many years before the Revolution cotton had not been worth more than 9 pence sterling per pound in the West Indies.<sup>28</sup> It seems probable, therefore, that an earlier response in the American Colonies to the increased demand had been prevented by the Revolutionary War and the confused conditions immediately following it, and that the response after 1786 was partly attributable to the growing unprofitableness of indigo.<sup>29</sup>

Although the Revolutionary War delayed the commercial production of cotton it greatly increased its growth for domestic consumption and thereby stimulated interest in varieties and in methods of production and ginning. In June, 1788, Jefferson declared that in almost every family of Virginia some cotton was manufactured for family use.<sup>30</sup> It was handled by local dealers in regions that did not produce a sufficient quantity for domestic supply.<sup>31</sup>

Undoubtedly the increased interest in cotton by reason of its widespread growth for home use, its higher price, and the rapidly increasing demand were directing attention to the idea of commercial production before the invention of Whitney's gin. This was reflected in the imposition in 1789 of a duty of 3 cents a pound on foreign cotton.<sup>32</sup> In an anonymous letter addressed to the Governor of Virginia, June, 1786, the writers urged a tax on tobacco, to be

<sup>26</sup> Hammond, M. B., *Cotton Industry*, 20; *Southern Agriculturist*, new series, IV, 129.

<sup>27</sup> Baines, *Cotton Manufactures in Great Britain*, 215, 346; Ure, *Cotton Manufacture of Great Britain*, I, 222; *Considerations relative to a Plan of Relief for the Cotton Manufactory, etc.*, 45; Bishop, *American Manufactures*, I, 397.

<sup>28</sup> *View of the United States*, 20; cf. *Treatise on the Cotton Trade in Twelve Letters*, 20.

<sup>29</sup> Letter by an "Inhabitant of Chatham county," in the *Columbian Museum and Savannah Advertiser*, reprinted in *Georgia Historical Quarterly*, I, 40.

<sup>30</sup> *Writings* (Ford), V, 28. See also *idem*, *Correspondence* (Ford), 211; Anburey, *Travels through America*, II, 375-378.

<sup>31</sup> *Kentucky Gazette* (Lexington), May 5, 1792. Concerning its widespread production in early Kentucky and Missouri, see below, pp. 687, 880.

<sup>32</sup> *Niles' Register*, XXXII, 332; Hammond, M. B., *Cotton Industry*, 20.

employed in placing a bounty on cotton exports.<sup>33</sup> About 1790 or 1791 Bartley Smyth, of South Carolina, conceived the idea of going into cotton production on a large scale in the interior of the State. In 1792 the "first considerable exportation of cotton was made, consisting chiefly of black seed cotton."<sup>34</sup> Exports reaching Liverpool about this time from various parts of America were as follows: In 1785, 5 bales, of which 3 were from Philadelphia and 1 each from Charleston and New York; in 1786, 6 bales, all from Charleston; in 1787, 108 bales, 40 of them from Charleston, 52 from Philadelphia, 9 from New York, and 7 unrecorded; in 1788, 282 bales, of which 43 were from Charleston, 95 from Philadelphia, 62 from New York, and the port of shipment for the remainder not given.<sup>35</sup> That considerable cotton was being shipped, probably in the seed, to Northern cities, and exported from there, was stated by Jefferson in 1786.<sup>36</sup> It is probable that these early exports were largely black-seed cotton.

#### EARLY PROGRESS OF THE SEA-ISLAND COTTON INDUSTRY

After the introduction of the Bahama sea-island variety the production of that type increased for a time with great rapidity on the islands and adjacent mainland

TABLE 22.—*Exports of sea-island cotton from South Carolina, 1789-1801*<sup>1</sup>

	Pounds	Bags
Oct. 1, 1789 to Sept. 30, 1790 . . . . .	9,840	30
Oct. 1, 1790 to Sept. 30, 1791 . . . . .	54,075	164
Oct. 1, 1791 to Sept. 30, 1792 . . . . .	76,710	232
Oct. 1, 1792 to Sept. 30, 1793 . . . . .	93,540	284
Oct. 1, 1793 to Sept. 30, 1794 . . . . .	159,040	482
Oct. 1, 1794 to Sept. 30, 1795 . . . . .	1,109,653	3,363
Oct. 1, 1795 to Sept. 30, 1796 . . . . .	912,600	2,765
Oct. 1, 1796 to Sept. 30, 1797 . . . . .	1,008,511	3,056
Oct. 1, 1797 to Sept. 30, 1798 . . . . .	2,476,431	7,504
Oct. 1, 1798 to Sept. 30, 1799 . . . . .	2,801,996	8,491
Oct. 1, 1799 to Sept. 30, 1800 . . . . .	6,425,863	19,472
Oct. 1, 1800 to Sept. 30, 1801 . . . . .	8,301,907	25,157

<sup>1</sup> *Hunt's Merchants' Magazine*, XXII, 504; Drayton, *View of South Carolina*, 168.

of the Georgia and South Carolina coast. It is probable the new cotton brought a considerable premium over usual prices for West India and Smyrna cotton. The first sea-island to reach London from Georgia was sold to Glasgow manufacturers for 4 shillings 6 pence sterling per pound.<sup>37</sup> By 1789 some twenty persons on the Georgia coast were producing the new cotton, and it soon spread rapidly in the coastal region of South Carolina.<sup>38</sup> The new industry was a great boon to the planters suffering from depression in the indigo industry. For a

<sup>33</sup> Letter signed by "Thirteen Friends," in Virginia, *Calendar of State Papers*, IV, 146.

<sup>34</sup> Johnson, W., *Nugae Georgicae*, 17.

<sup>35</sup> Massachusetts Historical Society, *Proceedings*, III, 228; cf. De Bow, *Industrial Resources*, I, 120. De Bow gives figures identical with the above for 1786, but for 1785 he shows 14 bags; for 1787, 109 bags; for 1789, 842 bags; and for 1790, 81 bags.

<sup>36</sup> *Writings* (Ford), IV, 281.

<sup>37</sup> Letter of William Parrott, in Massachusetts Historical Society, *Proceedings*, III, 222.

<sup>38</sup> Ure, *Cotton Manufacture of Great Britain*, I, 167; Kinsey Burden's recollections, printed in *Southern Agriculturist*, new series, IV, 163; Seabrook, *Memoir on Sea Island Cotton*, 3.

number of years prices of sea-island cotton were high, and profits very large, averaging at times as much as \$500 per hand.<sup>39</sup>

From 1789 to 1800 exports of sea-island cotton from Charleston increased from 30 bags to 25,157 bags, or 8,301,907 pounds. (See Table 22.) There was no considerable development before 1794-95. The most rapid expansion came in the trade years 1800 and 1801.

The sea-island cotton industry developed a restricted geographic location and peculiarities of production and marketing so distinctive as compared with upland cotton that the two may be fairly considered different industries.<sup>40</sup>

#### INVENTION OF GINNING MACHINERY FOR SHORT-STAPLE COTTON

It is estimated that as early as 1793 from 2,000,000 to 3,000,000 pounds of short-staple cotton were produced in the back country of South Carolina and Georgia, mainly for domestic use. In August, 1794, Eli Whitney wrote that there were already 800,000 pounds on hand waiting to be ginned, and the next crop soon to come.<sup>41</sup> Extensive commercial production awaited the invention of an effective means of separating from the seed the closely adhering lint.

The need was met through the invention by Eli Whitney of a new type of gin. The machine consisted of a cylinder fitted with wire teeth, designed to draw the seed cotton through a wire screen that separated the seed from the lint, and fitted with a revolving brush to remove the lint from the teeth of the cylinder. The first model, completed in the Spring of 1793, was capable of ginning only about 50 pounds a day.<sup>42</sup>

In view of the prevailing interest in the problem before Whitney's invention it would not be strange if others had also been working toward the same end, and, in fact, a number of contemporary and subsequent claims were made.<sup>43</sup> Whitney found it impossible to monopolize the fruits of his invention. One of his rivals is said to have obtained access to the model by disguising himself as a woman. The eager populace broke into the shed where the model was stored and carried it away. There were soon a number of models in various parts of the South. While Whitney appears to have had the idea of circular saws and later deposited a model of this character in the Patent Office, he made some of his earlier machines with wire teeth, believing these would do less damage to the fiber. Various persons attempting to pirate the invention set up gins characterized by circular saws, and on this basis attacked Whitney's patent. Whit-

<sup>39</sup> Dubose, *Address to the Black Oak Agricultural Society* (Thomas, *Huguenots in South Carolina*), 14.

<sup>40</sup> For subsequent history of the sea-island industry, see below, Chap. XXXI.

<sup>41</sup> Hammond, M. B., "Correspondence of Eli Whitney relative to the Cotton Gin," in *American Historical Review*, III, 101, 115.

<sup>42</sup> Accounts of the circumstances and incidents connected with the invention will be found in D. Olmsted's *Memoir of Eli Whitney*, 11-18; M. B. Hammond's *Cotton Industry*, 24-27; and his "Correspondence of Eli Whitney relative to the Cotton Gin," in *American Historical Review*, III, 90-127. See also *Hunt's Merchants' Magazine*, XXI, 633-639; Bishop, *American Manufactures*, II, 48-50.

<sup>43</sup> Concerning these various claims, see Turner, J. A., *Cotton Planter's Manual*, 289, 293-296; letter of Wade Hampton, reprinted in *Dollar Farmer*, III, 11; McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 113. For critical discussion of some of the claims, see M. B. Hammond, "Correspondence of Eli Whitney relative to the Cotton Gin," in *American Historical Review*, III, 93-98.

ney and his partner, Miller, were soon involved in a maze of litigation, from which they emerged with little to show for their pains.<sup>44</sup>

By 1795 local mechanics had set up gins in various parts of the South as far west as the lower Mississippi. Whitney's original idea had been to maintain a monopoly of toll ginning, and many of the earlier gins established were operated on the toll basis. Plantation gins soon became common and continued to be principally employed until after the Civil War.<sup>45</sup>

#### PRICES OF UPLAND COTTON, 1790-1814

The effect of the new invention was immediate. In 1794 the total product of the United States was estimated at 8,000,000 pounds, a considerable part of which consisted of sea-island cotton. Four years later the estimated product had doubled. The crop of 1804 was more than eight times that of 1794.<sup>46</sup> This rapid expansion was stimulated by exceptionally high prices. Although in 1788 the cotton market was suffering from depression<sup>47</sup> due to rapid increase in production during the preceding years, the expanding demand soon resulted in a recovery. Price quotations in the American market in the early period are not very reliable, for the supply was small and markets not well developed. Apparently fluctuations from year to year were much more extreme than at a later period. The indications are that the level of prices during the period 1790 to 1800 inclusive was extremely high, averaging about 35 cents a pound at the ports. (See Fig. 6.) This high average was possibly due partly to failure in the earlier years to distinguish sea-island cotton and upland smooth-seeded cotton from the green-seed cotton in early quotations. It is even probable that the market itself did not make as great a distinction as was later recognized. In an advertisement in a Georgia paper in the Fall of 1796 a Savannah merchant offered to purchase choice sea-island cotton for 16 pence per pound and up-country cotton for 13 pence.<sup>48</sup>

These prices made possible abnormally high profits, even though expenses of production were probably considerably higher than in the later period. About the beginning of the nineteenth century a traveller observed that a profit could be made on cotton sold at 12 cents a pound.<sup>49</sup> Michaux, writing in 1805, asserted that in Tennessee when cotton sold for 18 cents a pound a small family could cultivate four acres with a net profit of \$212 not counting the value of the labor, besides making provisions.<sup>50</sup> To pioneers, accustomed to but little money income, this must have appeared sudden riches.

In 1800-01 the price dropped from 44 cents to 19 cents, and continued at lower levels until 1811. By December, 1803, cotton was quoted at only about 15 cents in the New Orleans market, and in February of the following year at

<sup>44</sup> See Hammond, M. B., *Cotton Industry*, 28-30.

<sup>45</sup> See article in *Southern Agriculturist*, VII, 71-73; Watkins, *King Cotton*, 139, 161, 166; Bishop, *American Manufactures*, II, 69, 88, 95, 101.

<sup>46</sup> De Bow, *Industrial Resources*, I, 122.

<sup>47</sup> *Considerations relative to a Plan of Relief for the Cotton Manufactory, etc.*, 3, 9, 14.

<sup>48</sup> *Columbian Museum and Savannah Advertiser*, Nov. 18, 1796.

<sup>49</sup> Mead, *Travels*, 22.

<sup>50</sup> *Travels*, 241.

16 cents.<sup>51</sup> In 1802 and 1803 prices at New Orleans appear to have been much lower than export prices for those years, but the New Orleans price improved greatly from 1803 to 1805. The price decreased a little the following year and then declined precipitately until 1808 and 1809, when it averaged less than 14 cents. There was a slight improvement in the price of the crop of 1810, but the outbreak of war with England in 1812 caused the price at New Orleans to average less than 10 cents for the crop of 1811. In May and June, 1812, cotton at New Orleans sold for 6 to 7 cents a French pound.<sup>52</sup> These low prices were prob-

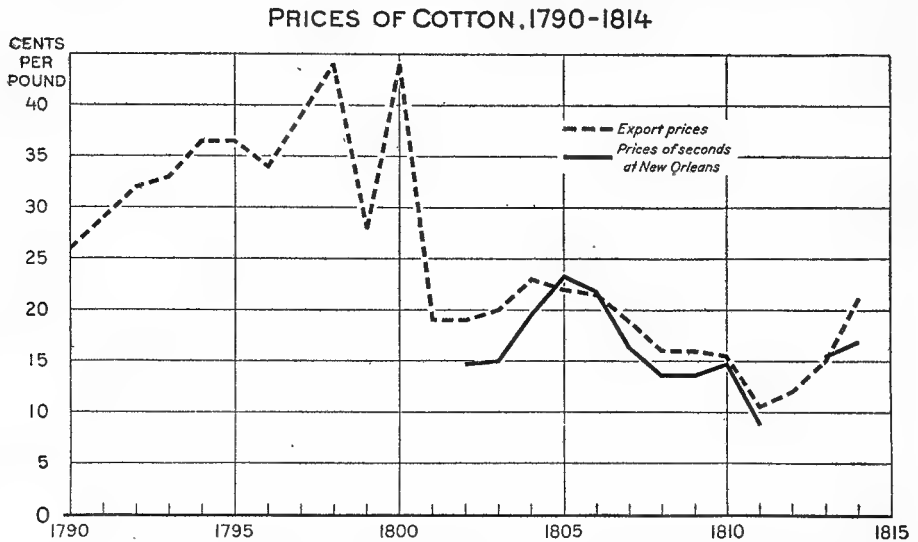


FIG. 6.—Prices are given for the crop year, the price year being from September 1 to August 31. Prices taken from Woodbury have been changed to the crop year. Most of the prices, therefore, are for the year following the crop year, and also the bulk of the receipts. Export prices are from Woodbury's *Report on Cotton* (p. 16). For the period 1790 to 1800 inclusive his prices are averages "from Almy and Brown's books at Providence, deducting one cent per pound for freight, &c" (p. 17). From 1801 on prices are copied by Woodbury from John Marshall's *Digest of Accounts relating to Great Britain and Ireland* (p. 110). Woodbury's figures check with Marshall's for upland cotton. Woodbury says that Marshall's figures include sea-island cotton, and there is no indication in Marshall's table that this is not the case. However, the sudden drop in the price curve from the crop year 1800 to the crop year 1801 suggests the possibility that sea-island cotton was not included in Marshall's price statistics.

Prices at New Orleans were compiled from New Orleans papers, except in occasional instances when it was necessary to employ papers in other cities which gave New Orleans quotations. (See Appendix, Table 41.) For the most part, the prices are for seconds. Where a number of quotations within a given month were available the quotation as near the middle of the month as possible was taken, provided it appeared consistent. No quotations were found for 1812 consistent with this series, and only one for 1813. For the other years monthly prices are sufficiently complete to provide a reliable average.

ably attributable to interruptions and uncertainties of trade rather than to expansion of production, which increased little during the decade 1805-1814. The nonintercourse policy was a severe blow. An article in a Charleston paper declared, "*We feel it. Cotton is worth only fourteen cents a pound.*" Merchants were compelled to ship cotton first to Amelia Island, paying freight and insurance thither, then give British and Spanish ships "a monstrous freight" to carry it

<sup>51</sup> Cf. also *Charleston Courier*, Nov. 28, 1803; Feb. 13, 1804.

<sup>52</sup> *Louisiana Gazette*, May 18, June 1, 1812. Information supplied the author through the courtesy of Miss Nora Howells, assisting Arthur H. Cole.



"to those ports from which we have excluded ourselves."<sup>53</sup> During the War of 1812 cotton was dammed up in the ports, and at times sold as low as 9 cents a pound, although worth 20 cents at Boston. It was hauled in wagons from Georgia to the Baltimore market. There was a tendency to substitute wheat for cotton production.<sup>54</sup>

Toward the close of the war the situation appears to have eased somewhat. Export prices, which had fallen in 1811 to only a little over 10 cents, rose to 12 cents in 1812, and to 15 cents in 1813.<sup>55</sup> The British Government was disposed to relax in respect to cotton the restrictions against trading with America. An old act of Parliament permitting trade in neutral vessels was invoked to justify issuance of licenses to shipmasters bound for America to load with cotton. This relaxation was bitterly protested by cotton merchants interested in the Brazil trade, who had been reaping a harvest by reason of the extraordinary demand for foreign cottons.<sup>56</sup> Probably as a result exports for 1814 amounted to about 166,000 statistical bales (500-pound), as compared with an average of only about 44,000 for the three preceding years.<sup>57</sup>

#### EXPANSION OF THE UPLAND COTTON INDUSTRY IN THE APPALACHIAN PIEDMONT

The principal development of upland cotton production prior to 1815 occurred in the metamorphic region of upper South Carolina and the eastern portion of central Georgia. (See Fig. 7.) It was estimated that in 1801 South Carolina produced 20,000,000 pounds and Georgia 10,000,000, out of a total for the United States of 40,000,000. In 1811 the two States produced 40,000,000 and 20,000,000 respectively out of a total of 80,000,000.<sup>58</sup>

This new plantation region, which, under the name of the "upper country" had been sharply differentiated in social and economic life for more than a generation from the "low country" of the coastal plain,<sup>59</sup> was as sharply distinguished by geographical formation and general topography. In the Carolinas and Georgia the two regions are separated by a belt of sand hills from 10 to 30 miles wide, commonly known as "pine barrens." Northwest of this belt is the area of metamorphic rocks and their derivative soils, extending from the northeast to southwest, in width about 75 to 100 miles, and bordered on the northwest by the foothills of the mountains. It is a region of old rocks largely worn down to a gently rolling surface, the contour becoming sharper in the western part.

<sup>53</sup> *Charleston Courier*, Feb. 10, 1810.

<sup>54</sup> Ravenel, H. H., *William Lowndes*, 127; Andrews, G., *Reminiscences of an Old Georgia Lawyer*, 14; Pitkin, *Statistical View of Commerce*, 110.

<sup>55</sup> United States, Dept. Agric., *Atlas of American Agriculture*, Pt. V, Sec. A, *Cotton*, 18.

<sup>56</sup> Great Britain, *Statutes at Large* (Pickering), XLIV, 985 (43 Geo. III, c. 153). A vigorous statement of the opposing position of the Brazilian merchants is contained in a pamphlet by Charles Lyne, who appears to have been interested in the Brazilian cotton trade, entitled *A Letter to the Right Honorable Lord Castlereagh, on the North American Export Trade during the War, etc.*, especially pp. 17, 28. On the copy in the Library of Congress are some illuminating marginal notes in the handwriting of a contemporary, who was evidently favorable to the relaxation of restrictions on the American trade.

<sup>57</sup> United States, Dept. Agric., *Atlas of American Agriculture*, Pt. V, Sec. A, *Cotton*, 18.

<sup>58</sup> Woodbury, *Report on Cotton*, 13.

<sup>59</sup> For a detailed account of the evolution of this region from the close of the Revolutionary War to the beginnings of the cotton industry, see Bacot, "South Carolina Up Country," in *American Historical Review*, XXVIII, 682 *et seq.*

The region contains a great variety of soils, varying from light loams to heavy clays; but, generally speaking, the soils are naturally fertile, there is a general absence of light sandy soils, and the original timber growth consisted, for the most part, of hardwoods. The early pioneers found large areas covered with cane rather than trees; and the length of the cane was a criterion of the excellence of the land.<sup>60</sup>

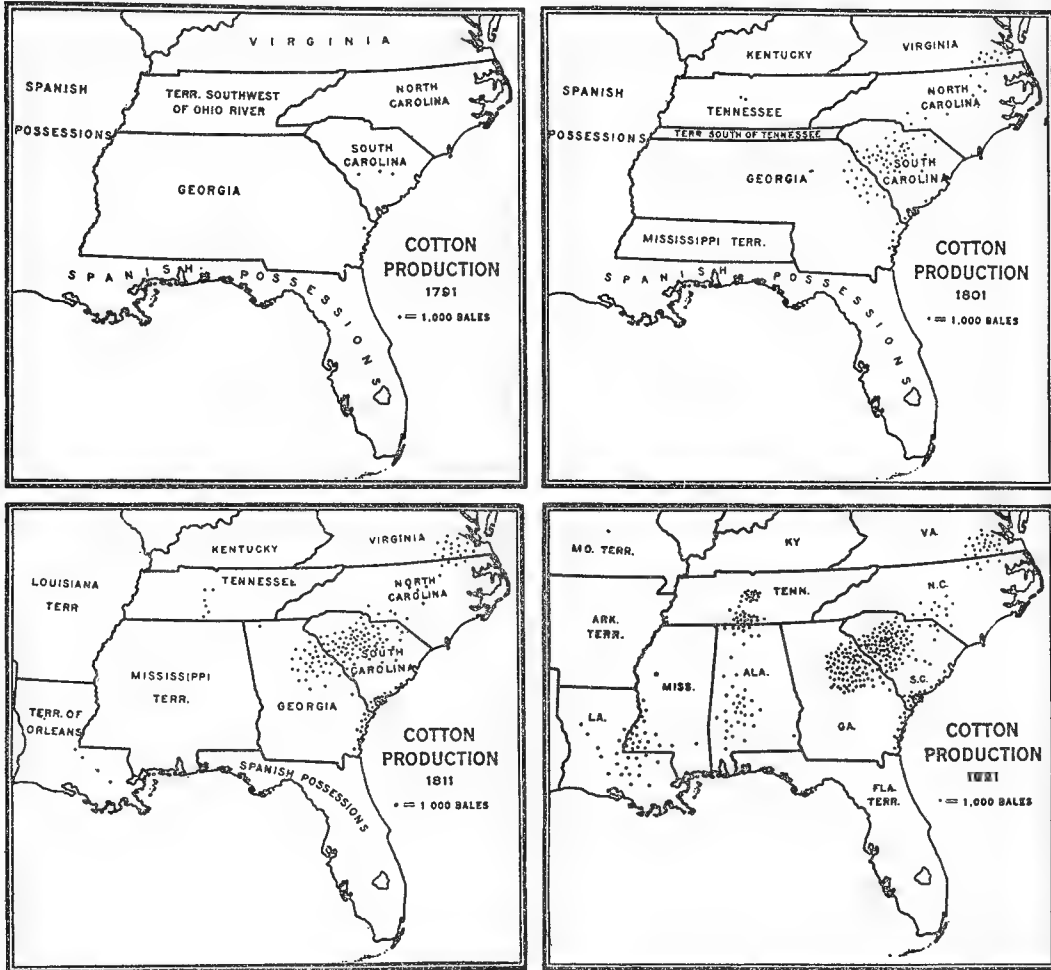


FIG. 7.—Expansion of cotton production, 1791 to 1821 inclusive. The maps are based on those published in the *Atlas of American Agriculture, Part V, Section A, Cotton*, prepared under the immediate direction of Doctor O. C. Stine, of the United States Department of Agriculture.

The region suffered from the disadvantage of remoteness from market. The fall line occurs on the edge of the sand-hill region which forms the eastern boundary. In South Carolina the Saluda river was navigable for boats carrying 50

<sup>60</sup> See following articles: "Georgia," by R. H. Loughbridge; "South Carolina," by H. Hammond; "North Carolina," by W. C. Kerr, all in *United States Census, 1880, VI, Cotton Production*, 278-280, 295-307, 492-500, 550-552; cf. Emerson, "Geographic Influences in American Slavery," in *Amer. Geog. Soc. Bulletin*, XLIII, 114-117.

bales of cotton, for 84 miles above Columbia. Navigation on the Broad extended for 28 miles above the same city. The Catawba was not navigable for a great distance above the fall line. The Savannah was navigable to the fall line at Augusta, and by transshipment beyond that point for more than 150 miles. On the Altamaha and Ocmulgee uninterrupted navigation ended before the sand hills were reached, and on the Altamaha and Oconee it extended only to the edge of the sand hills.<sup>61</sup> Even where navigation extended beyond the fall line, the process of transfer was expensive, and there were large areas remote from river navigation. Cotton was shipped in flat-bottom boats, variously called piraguas, cotton boxes, arks, and keel boats. Piled high with ten or twelve tiers of bales, they formed a cheap method of conveyance where navigable water was available, and their light draft enabled them to navigate water that was hardly deep enough for steamboats.<sup>62</sup> From districts accessible to streams cotton was hauled in large wagons—near akin to Conestogas. Drawn by six horses, these vehicles were capable of carrying five to six bales. In 1805 the cost of hauling was 3 shillings 4 pence per hundred weight for each hundred miles.<sup>63</sup>

Through the introduction of cotton the economic life of this region acquired a new vitality and gradually a new character. Population flocked thither rapidly, more and more slaves were introduced, the agriculture became increasingly commercialized, and a region which had passed through all the stages of economic evolution from the fur trade to a diversified economy of farming and handicrafts was gradually transformed into a régime of commercial plantations. The tobacco industry, which had supplied a market crop, gave way before the power of cotton; the small towns, which were already springing up, ceased to develop further; the ironworks and the flour mills languished; grain-raising and stock-raising became relatively less important, and by 1843 Camden and Columbia, which had formerly exported grain and flour, were importing northern grain and hay through Charleston.<sup>64</sup> Household manufactures gave place to "store-bought" goods; the plantation mansion began to replace the rough cabin of the pioneer farmer; roads were opened to the coast, and river navigation improved; and this formerly backwoods region began to be amalgamated in social and economic interest with the older planting regions of the coast.<sup>65</sup> Thus, in a group of four counties<sup>66</sup> typical of the region in South Carolina there was a steady increase in free population and slave population from 1790 to 1860. The per cent of slave population to total population increased in every decade, from 18.4 in 1790 to 39.5 in 1820 and to 61.1 in 1860.

<sup>61</sup> *United States Census*, 1880, VI, *Cotton Production*, 283, 465.

<sup>62</sup> South Carolina, *Agricultural Survey, Report* (Ruffin, 1843), App., p. 38; Phillips, U. B., *Plantation and Frontier*, I, 283-289; Arfwedson, *United States and Canada*, I, 423; cf. Halle, *Baumwollproduktion*, I, 112.

<sup>63</sup> Michaux, *Travels*, 282.

<sup>64</sup> Bachman, *Inquiry into the Nature and Benefits of an Agricultural Survey of South Carolina*, 41.

<sup>65</sup> Dubose, *Address to the Black Oak Agricultural Society* (Thomas, *Huguenots in South Carolina*), 30; Logan, J. H., *History of Upper South Carolina*, 149; Andrews, G., *Reminiscences of an Old Georgia Lawyer*, 11; Schaper, *Sectionalism and Representation in South Carolina*, 247, 323, 389; Michaux, *Travels*, 278; *American Farmer*, 1 series (1819-22), I, 218; III, 329; *Southern Agriculturist*, XI, 132, 242-244; Conger, "South Carolina and the Early Tariffs," in *Mississippi Valley Historical Review*, V, 415.

<sup>66</sup> Abbeville, Laurens, Edgefield, and Newberry.

It is probable, however, that throughout much of the period preceding the War of 1812 the region was mainly one of small farmers raising some cotton for market but relying largely on domestic production and household manufactures. Near the close of the period David Ramsay declared that cotton enabled the poor whites of South Carolina to rise into the middle class. It stimulated the lower classes to exert themselves to acquire a competence, and this tended "to fill the country with an independent industrious yeomanry."<sup>67</sup> Even as late as 1842 Ruffin's surveys showed that there was a good deal of general farming combined with cotton production in this region. In Laurens and Newberry districts it was reported that all the cattle used and nearly all the horses and mules were raised on the plantations. The planters produced all the grain consumed, and usually marketed a surplus of flour. These practices had increased recently by virtue of depression in cotton prices. In the country "lying between Camden, Stateburg, the Wateree river, and five miles east of it" no foreign grain or hay was purchased.<sup>68</sup>

In a group of counties in the eastern part of middle Georgia the per cent of slave population to total population increased steadily until 1830.<sup>69</sup> From 1830 to 1840 both free population and slave population declined, largely because of emigration to regions farther west. From 1840 to 1850 both classes of population increased considerably, slaves increasing much more rapidly than freemen. During the next decade the increase in both elements of the population was slight. In this group of counties slaves constituted approximately 60 per cent of the total by 1860 as compared with only about 26 per cent in 1790. This portion of Georgia was evidently a halfway point for the westward-moving stream of white population. The farmers and small planters who first occupied the region either had become large planters through the purchase of slaves or had moved to the westward, being replaced by larger planters. About the beginning of the last decade of the eighteenth century Oglethorpe County was the western frontier; a land of scattering log cabins, range livestock, horse and cattle thieves, and Indian depredations.<sup>70</sup> In 1800 the Oconee river still formed the western boundary of the westward-moving tide of planters, but in 1802 and 1804 lands held by the Creeks were ceded, and settlement moved two tiers of counties west to the Ocmulgee river. Settlement in Georgia to the west of this line was deferred for nearly two decades until Indian title could be extinguished.<sup>71</sup>

#### DEVELOPMENT OF COTTON PRODUCTION IN THE BORDER STATES BEFORE 1815

Considerable development of cotton production prior to 1815 also occurred in Virginia and North Carolina. The two States produced 9,000,000 pounds in

<sup>67</sup> *History of South Carolina*, II, 448.

<sup>68</sup> South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., pp. 9, 37-39.

<sup>69</sup> The counties in this group are Burke, Columbia, Elbert, Jefferson, Oglethorpe, Richmond, Taliaferro, and Wilkes.

<sup>70</sup> White, G., *Statistics of Georgia*, 461; *Georgia State Gazette or Independent Register* (Augusta), July 14, 1787; *Augusta Chronicle and Gazette of the State* (Georgia), Dec. 19, 1789.

<sup>71</sup> For the successive tracts ceded by various Indian treaties, see United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. 2, map. No. 15; Phillips, U. B., *Georgia and State Rights*, map opposite p. 40.

1801 and 15,000,000 in 1811, nearly equally divided between them in each year.<sup>72</sup> Apparently, in Virginia the region of commercial cotton production was mainly in the southeastern part of the State.

The scale of one dot per thousand bales on the maps fails to show the wide diffusion of cotton production in this period. The geographic limits of profitable commercial production were only gradually determined by experimentation. In 1802 it was declared that the territory adapted to cotton production "begins in the southern counties of New-Jersey, and in the northern counties of Delaware, Maryland and Virginia. . . . The southern line of Pennsylvania continued eastward and westward seems to be the northern boundary of what may be called the cotton region of the United States."<sup>73</sup> Moreover, the region between the Appalachians and the Mississippi river and even beyond was filling up with hardy pioneers who produced cotton for household manufactures and even found it desirable to ship this product of high specific value long distances as a means of getting a little ready money.<sup>74</sup>

The pioneers of middle Tennessee turned eagerly to cotton. Colonel John Donelson is said to have planted cotton in 1780 near Nashville. By 1796 there were numerous small patches of cotton.<sup>75</sup> It is said that in that year the cotton plant was placed in the great seal of the State. When the news of the Whitney gin began to spread about the State, meetings were held to petition the legislature to purchase the patent rights. That body agreed to pay Whitney 37½ cents for each gin saw used in the State from 1804 to 1807 inclusive. By 1804 there were sixty-four gins in operation, mostly in middle Tennessee. The product in 1801 was estimated at 1,000,000 pounds and by 1811 had increased to 3,000,000.<sup>76</sup>

#### EARLY EXPANSION IN THE LOWER MISSISSIPPI VALLEY

Experiments in cotton production, as already noted, had been made in Louisiana before Whitney's invention, and small quantities exported.<sup>77</sup> By 1796 the estimated crop of the "Natchez country" exceeded 3,000 bales, of 250 pounds each.<sup>78</sup> Monette asserts that exports from New Orleans in 1802 amounted to 34,000 bales and the production of Louisiana to 20,000 bales.<sup>79</sup> This is probably a great exaggeration, even allowing for the small size of bales. Woodbury went to the other extreme, estimating the product of Louisiana in 1811 at only 2,000,000 pounds.<sup>80</sup> According to Watkins, who gives no source, the crop produced in Louisiana in 1800 was 3,000 bales, and 8,000 bales ten years later.<sup>81</sup> In De-

<sup>72</sup> Woodbury, *Report on Cotton*, 13.

<sup>73</sup> *Virginia Herald* (Fredericksburg), Feb. 26, 1802.

<sup>74</sup> Cuming, *Sketches of a Tour to the Western Country*, 470-473; Jillson, "Big Sandy Valley," in Ky. State Hist. Soc., *Register*, XX, 252; *Agriculturist*, III, 40.

<sup>75</sup> Ramsey, *Annals of Tennessee*, 450; Putnam, *History of Middle Tennessee*, 584.

<sup>76</sup> *Agriculturist*, III, 40; Watkins, *King Cotton*, 253-255; Woodbury, *Report on Cotton*, 13.

<sup>77</sup> See above, p. 77.

<sup>78</sup> Letter of Daniel Clark, quoted in Watkins, *King Cotton*, 161.

<sup>79</sup> *Discovery and Settlement of the Mississippi Valley*, I, 566. This was also given by De Bow. See quotation in Chew, *Kingdom of Cotton*, 51.

<sup>80</sup> *Report on Cotton*, 13; cf. notes on cotton in Louisiana at this period, in Robertson, J. A., *Louisiana*, I, 155.

<sup>81</sup> *King Cotton*, 189.

cember, 1801, Governor Claiborne estimated the value of the crop of Mississippi Territory sold for the "present year" at \$700,000,<sup>82</sup> probably equivalent to about 3,000,000 pounds, or roughly 10,000 bales. By 1802 cotton was becoming so important that the bill prohibiting the introduction of male slaves, which passed the lower house of Mississippi Territory, was rejected by the council. Two years later it was declared, "They appear only to claim it for a few years, and without it, they pretend that they must abandon the culture both of Sugar and Cotton."<sup>83</sup>

In 1803 cotton plantations not only were developing along the river in the vicinity of Baton Rouge, and farther up the river, but also were beginning to extend back of the river. The Bayou Lafourche country, which later became the heart of the sugar region, was rapidly engaging in cotton production.<sup>84</sup> By 1809 cotton had become the principal staple of the Red River valley and the Opelousas district. Small beginnings were made in the Ouachita country as early as 1800, but exports remained small until after the close of the War of 1812.<sup>85</sup> Up to that time only a small territory in southwestern Mississippi capable of attracting cotton planters had been acquired from the Indians. Most of the present territory south of a line running nearly parallel with and about fifty miles north of the Florida boundary was acquired from the Choctaws in 1805, but the light sandy soils did not prove very well adapted to cotton planting without fertilizers. In 1807-08 the territory now Alabama produced only about 500 bales. This increased to about 2,000 bales in 1810-11.<sup>86</sup>

In this period cotton production was found extremely profitable in the lower Mississippi region. It was declared in 1807 that although cotton was not as profitable as sugar it was possible to engage in cotton production with but little capital. An improved plantation of 600 acres and 30 slaves near the Mississippi represented an investment of about \$21,000. The annual crop was estimated at 30,000 pounds worth \$6,000, and the expenses, including overseer, at \$1,265, leaving a net profit of \$4,735, or 22.5 per cent on the investment. The poor but industrious immigrant could find rich alluvial lands in southern and western Louisiana and other outlying districts having water communication with New Orleans, for \$2.00 to \$4.00 per acre. In some of these districts, as in the prairies of Attakapas and Opelousas, there was no problem of land clearing. Under these favorable conditions and with the high prices for cotton, one could soon lay the foundations of a fortune.<sup>87</sup> The easy-going, semicommercial husbandry in the lower Mississippi valley began to give way before the development of highly specialized and commercial plantations. Even before 1803 some of the wealthier planters were producing crops valued at from \$10,000 to \$16,000 a

<sup>82</sup> Letter to James Madison, in Claiborne, W. C. C., *Official Letter Book*, I, 28.

<sup>83</sup> Claiborne, W. C. C., *Official Letter Book*, I, 39; II, 10.

<sup>84</sup> Scroggs, "Rural Life in the Lower Mississippi Valley about 1803," in *Mississippi Valley Hist. Assn., Proceedings*, VIII, 268; Moody, "Slavery on Louisiana Sugar Plantations," in *Louisiana Historical Quarterly*, VII, 194.

<sup>85</sup> Watkins, *King Cotton*, 138, 190.

<sup>86</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. 2, pp. 661, 672, and map No. 36; Watkins, *King Cotton*, 138.

<sup>87</sup> *Charleston Courier*, Nov. 6, 1807.

year. By 1812 there were planters whose annual crops brought \$20,000 to \$30,000. The larger plantations were above New Orleans, between that city and Pointe Coupée. There were many small cotton planters on the fertile alluvial lands of the Lafourche and the Atchafalaya, living a simple, frugal life, and preserving tenaciously French customs and standards. They tended large herds of cattle, produced some cotton, and raised the greater part of their food. About 1812 they began to turn their attention to the planting of sugar, and thenceforward the development of large-scale plantations proceeded steadily.<sup>88</sup>

#### EARLY METHODS OF CULTIVATION

In the first years after the invention of the cotton gin there were no uniform methods of planting and cultivation. Hitherto cotton had been cultivated mostly in small patches as a garden plant. In the tobacco States the practices of suckering and topping were also applied to cotton. Most farmers planted in hills, though a few had begun to use drills.<sup>89</sup> The planters were experimenting with various practices. It was only gradually that methods of cultivation for sea-island and for upland cotton were differentiated. It was a number of years before the planters learned the proper season of planting, many being inclined to plant too early. According to Thomas Spaulding, the early planters on the Georgia coast, believing that cotton required a great space to extend its limbs, planted the seeds in hills, or merely in holes on the flat, at distances from five to eight feet. Bahama planters coming to Georgia in 1794 are said to have introduced the ridge method, then used in the West Indies. It was probably not until after 1800 that this experimental stage was passed and some uniformity of practice came to prevail.<sup>90</sup>

The inefficiency of these early planters was in severe contrast to the skillful and well standardized methods ultimately developed.<sup>91</sup> In picking cotton, for instance, 50 or 60 pounds per day was considered a good task for a hand.<sup>92</sup> Yields per hand were small. The fiber was often seriously injured by the rude gins, and was packed for market in crude unstandardized bags, into which the cotton was pressed by stamping with the feet or pounding with a wooden tamper.

An important step was the substitution of Mexican cotton for the ordinary "Tennessee green seed," which, as we have seen, had replaced the early black-seed type.<sup>93</sup> Seed from Mexico was probably introduced about the middle of the first decade of the nineteenth century, although another decade elapsed before it had largely replaced the older varieties. Watkins declares, "From an economic point of view the introduction of this seed was second in importance to the invention of the saw gin." The varieties previously in use had become seriously

<sup>88</sup> Stoddard, *Sketches of Louisiana*, 167, 173.

<sup>89</sup> *Agriculturist*, III, 40; Pickering, *Timothy Pickering*, I, 298-299 & n.

<sup>90</sup> *Southern Agriculturist*, VI, 144-146; Halle, *Baumwollproduktion*, 78.

<sup>91</sup> See below, pp. 700-705.

<sup>92</sup> Mississippi, Agricultural and Geological Survey, *Report* (Wailes, 1854), p. 154; Watkins, *King Cotton*, 72, 100.

<sup>93</sup> See above, p. 677.

subject to rot and had greatly deteriorated. The staple had become shorter, and the pods did not open widely, making picking difficult. The average day's picking per hand was only 30 to 40 pounds of black-seed cotton and 75 to 100 of green-seed. By reason of its large wide-open bolls it was possible at first to pick 150 pounds of Mexican cotton, gradually increasing to several hundred pounds.<sup>94</sup>

<sup>94</sup> *King Cotton*, 13, 75, 164.



## CHAPTER XXX

### SHORT-STAPLE COTTON, 1815-1860

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#### GROWTH OF THE INDUSTRY

At the close of the War of 1812 cotton produced in the United States was estimated at less than 150,000 bales. The crop produced in 1859 amounted to 4,541,000 bales, an increase of over thirtyfold. (See Table 40, Appendix.) During the first five years following the close of the War of 1812 production approximately doubled. By 1826 it had about doubled again. For the next four or five years there was but little increase, probably because of low prices. Between 1830 and 1837 the crop doubled again. The period of low prices from 1839 throughout most of the next decade was not conducive to rapid expansion, but there was some upward trend, and by 1851 the crop was again approximately double that of 1837. The crop of 1859 was more than double that of 1849.

This extraordinary growth was made possible by two conditions; a vast territory of virgin land adapted to cotton production and the rapid expansion of demand. As already noted, a third factor, the labor supply, was limited mainly to natural increase of slave population engaged in cotton production, supplemented by those who could be transferred from other employments.<sup>1</sup> For a time the supply of land and labor, amplified by great progress in labor efficiency, permitted a rapid increase in volume of production, which for considerable periods even ran ahead of demand. Toward the end of the period, however, limitations of labor supply were beginning to be keenly felt. Some further increase in production might have occurred through the transfer of still more slaves from the border States and the older cotton producing regions, but it is probable that had the Civil War not occurred and had no change taken place in sources of labor supply, the growth of the cotton industry would have been seriously retarded.

#### EXPANSION OF THE FOREIGN MARKET FOR AMERICAN COTTON

At the time of the invention of the cotton gin Great Britain was the principal market for cotton, and the series of British inventions of textile machinery increased the predominance of Great Britain. By 1821 French imports from the United States amounted to 27,333,000 pounds, as compared with 93,500,000 for Great Britain and 9,750,000 for all other countries. French imports increased to 104,000,000 pounds in 1840 and to 168,000,000 by 1855.<sup>2</sup>

<sup>1</sup> See below, p. 933.

<sup>2</sup> Woodbury, *Report on Cotton*, 31; McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 109; cf. Claiborne, J., *Consumption of Cotton in Europe*, 7, 20.

The last three decades of the ante bellum period witnessed a steadily increasing expansion of cotton manufacturing in other countries of Continental Europe. The protective policy of the Prussian Zollverein set an example soon followed by other countries, including Russia and Austria, anxious to reduce their dependence on Great Britain. By 1847 the Zollverein was importing over 40,000,000 pounds of raw cotton. Six years later imports had increased to over 89,000,000 and by 1855 to nearly 119,000,000. Russian imports of raw cotton increased from an annual average of a little over 2,500,000 pounds in 1824-1826 inclusive to nearly 63,000,000 in 1852. By 1856 Austria was importing nearly 84,000,000. Swiss imports from 1852-1856 averaged upwards of 25,000,000 pounds, and Belgian imports principally for home consumption were about 29,000,000.<sup>3</sup> In 1856 imports from the United States in round thousands of bales were 53,000 for Holland, 118,000 for Spain, and 95,000 for Genoa, Naples, and other Italian States.<sup>4</sup>

From 1839-40 to 1859-60 the distribution of the supply of American cotton in bales as between Great Britain, the Continent of Europe, and the United States, and the percentages of increase were as follows:<sup>5</sup>

	1839-40	1859-60	Per cent increase
	<i>bales</i>	<i>bales</i>	
Great Britain.....	1,022,000	2,344,000	130
Continental Europe.....	453,000	1,069,000	136
United States.....	336,000	953,000	184

Consumption by the rivals of Great Britain was increasing at a more rapid rate than that of Great Britain, a tendency welcomed by persons in the South who resented the so-called British monopoly.<sup>6</sup> Nevertheless, just before the Civil War Great Britain still accounted for more than half of the World's consumption, and the growth of British consumption had been largely responsible for the increase of American exports from an annual average of less than 220,000,000 pounds for 1830-1832 inclusive to nearly 713,000,000 for 1853-1855.<sup>7</sup>

After the beginning of the nineteenth century important changes occurred in the sources of supply of cotton. For the three-year period 1800-1802 the United States was providing about one third of total British imports.<sup>8</sup> India had begun regular exports to Great Britain in the latter part of the eighteenth century, and by 1789, it was asserted, they amounted to some 16,000 out of a total importation of about 80,000 bags. Thereafter Indian exports increased notably. In 1823 Egypt began to export cotton, and after overcoming certain commercial

<sup>3</sup> Claiborne, J., *Consumption of Cotton in Europe*, 34, 54, 58, 69, 77, 92; cf. *Orleans Gazette and Commercial Advertiser* (New Orleans), Apr. 25, 1820.

<sup>4</sup> Ellison, *Hand-Book of the Cotton Trade*, App., Table D.

<sup>5</sup> McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 110. The percentage for the United States is incorrectly given as 154 instead of 184.

<sup>6</sup> *Cotton Plant*, I, 332.

<sup>7</sup> United States, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 34.

<sup>8</sup> For annual statistics constituting the basis of this statement, see Ellison, *Hand-Book of the Cotton Trade*, App., Table B.

handicaps became a fairly important source of world supply. By 1851 the output of the British West Indies was scarcely one fifth that of 1787.<sup>9</sup> Production in Brazil and Asia Minor did not increase in proportion to the growth of world consumption. About 1817 Tench Coxe pointed with concern to the development of cotton production in India and the possibility of its displacing American cotton.<sup>10</sup> The actual tendency was in the direction of increasing American preponderance. The relative importance of the several sources of supply in the British market at various periods was as follows in terms of average weekly consumption in bales:<sup>11</sup>

Source of supply	1816-20	1821-25	1826-30	1831-35
America.....	3,800	6,400	9,200	13,000 <sup>1</sup>
Brazil.....	2,200	2,600	2,400	"slight increase"
East Indies (India).....	1,100	1,000	700	"slight increase"
West Indies.....	700	600	400	200
Egypt.....	.....	200	700	"slight increase"

<sup>1</sup> "Ours was three-fourths of the whole."

From the last named period until the Civil War about three fourths of the cotton consumed in Europe and the United States was produced in the latter, as shown by the following table of five-year annual averages in millions of pounds:<sup>12</sup>

Source of supply	1831-35	1836-40	1841-45	1846-50	1851-55	1856-60
America.....	405.9	585.7	816.3	964.2	1254.7	1633.7
Brazil.....	30.6	25.3	18.9	23.8	27.1	27.7
West Indies, etc.....	9.5	13.4	9.4	6.3	6.3	7.2
East Indies, etc.....	34.2	56.5	72.6	86.7	134.8	207.9
Egypt, Smyrna, etc.....	26.4	30.1	23.8	29.7	60.0	57.0
Total.....	506.6	711.0	941.0	1110.7	1482.9	1933.5

Not all the foreign cotton competed directly with American cotton. Egyptian cotton was used for fine threads and fabrics, competing with the shorter types of American sea-island cotton, but to a less extent with upland cotton. Brazilian cotton ranked next to Egyptian in fineness and length of staple. Indian cotton was of such inferior character that it was employed mainly for mixing with American cottons in manufacture of the coarsest fabrics.<sup>13</sup> There was a tendency to employ the Indian supply as "a sort of imperfect check upon American prices," but to prefer American cotton when conditions of supply and prices were favorable. This resulted in an extreme fluctuation in quantity of Indian

<sup>9</sup> *Treatise on the Cotton Trade in Twelve Letters*, 17, 19; Bazley, *Cotton as an Element of Industry*, 126, 129-131; *The Asylum* (St. Francisville, La.), Apr. 3, 1824; *Natchitoches Courier* (Louisiana), May 24, 1825.

<sup>10</sup> *Memoir upon Cotton Wool Cultivation*; *idem*, *Addition to the Memoir upon Cotton*.

<sup>11</sup> McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 117; cf. Ellison, *Hand-Book of the Cotton Trade*, 75, 85; cf. Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), pp. 8-10.

<sup>12</sup> United States, Dept. Treas., Bur. of Statistics, *Cotton in Commerce*, 34.

<sup>13</sup> McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 117; Royle, *Culture and Commerce of Cotton in India and Elsewhere*, 21-62.

cotton imported. During the high prices of 1818 British imports amounted to some 87,000,000 pounds, but in 1832 they were only 38,000,000, and during the low prices for American cotton in 1845 only 55,000,000.<sup>14</sup> Attempts before the Civil War to expand Indian production encountered serious handicaps. Native varieties were of the poorest quality and of low producing power; and numerous attempts at introducing American or other foreign varieties failed. While the Hindu laborer worked for a wage little if any above the cost of maintaining American slaves, he did not have the advantage of the efficient direction and management which prevailed on Southern plantations. Methods of cultivation, consequently, were of the crudest character. Much of the Indian crop was laboriously transported hundreds of miles to the coast on the backs of bullocks, involving an expense of 50 per cent of the market value of the crop as contrasted with as little as 3 per cent for American producing areas shipping down the Mississippi and its tributaries.<sup>15</sup>

The great and increasing preponderance of America in the production of cotton was a matter of deep concern to British economic and political leaders, a concern that was intensified by every crop shortage in America, increasing as the shadow of sectional conflict grew deeper. This concern led to attempts to develop new sources of supply in various parts of the world and the formation in 1857 of the Cotton Supply Association of Great Britain.<sup>16</sup>

A considerable part of the cotton imported by Great Britain was reexported to various European countries, amounting in 1853 to 147,000,000 pounds, about one fifth of the total British imports.<sup>17</sup> Russia purchased about three fourths of her supply of American cotton in Liverpool. Belgium imported from a third to a half of her supply from England, and the countries of the Zollverein and of southern Europe also bought largely in England. The tendency to buy through Liverpool dealers involved the very material advantage of a wide market registering the fluctuations in world-wide supply and demand. The classification in British markets was said to be more accurate than in other markets. Managers of mills in regions where the textile industry was in its infancy, notably in Russia, were frequently Englishmen, naturally partial to their native country and familiar with the classifications and other market conditions of Great Britain. The long credits afforded by British merchants constituted another condition that made it difficult to escape dependence on them. Various Continental restrictions on trade also operated to the advantage of Great Britain. Although Bremen merchants were eager to make that point the entrepôt for the supply of cotton to the countries of central Europe, the transit duties to Austria and other coun-

<sup>14</sup> "Cotton-Growing—American and Indian," in *British Quarterly Review*, IX, 361; cf. Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), pp. 8-11.

<sup>15</sup> Ashworth, *Cotton: Its Cultivation, Manufacture and Uses*, 36, 55; Gibbs, *Cotton Cultivation*, 112-115; "Cotton-Growing—American and Indian," in *British Quarterly Review*, IX, 366-371; Ellison, *Hand-Book of the Cotton Trade*, 35-72; Royle, *Culture and Commerce of Cotton in India and Elsewhere*, 21-61, 91-96; Wheeler, J. T., *Madras vs. America, A Handbook to Cotton Cultivation*, Chap. I.

<sup>16</sup> Bazley, *Cotton as an Element of Industry*, 126-128, 130-133; cf. *New Orleans Commercial Bulletin*, Apr. 9, 1840; Chapman, S. J., *Cotton Industry and Trade*, 10.

<sup>17</sup> United States, *Report on Commercial Relations* (*Senate Ex. Doc.*, 34 Cong., 1 sess., XIX, No. 107, Pt. I), 33.

tries of southern Europe imposed by the Zollverein gave Great Britain an advantage in shipping by way of Antwerp or France to Switzerland and by way of Trieste to Austria.<sup>18</sup>

During most of the ante bellum period American cotton was compelled to pay an import duty in its principal market, Great Britain. From 1798 to 1800 this was 6 shillings 6 pence per hundred pounds. In 1801 cotton was put on the free list, but war necessities forced a reimposition the next year at the rate of 7 shillings 10 pence per hundred. The following year the rate was more than doubled, and by 1809 had been increased to 16 shillings 11 pence. The duty was lowered to 8 shillings 7 pence in 1815, and in 1820 was further lowered to an ad-valorem basis of 6 per cent. It decreased to 5 shillings 10 pence per hundred in 1831, and to 2 shillings 11 pence per hundred in 1833. In 1845 raw cotton was put on the free list, and so continued until the end of the ante bellum period.<sup>19</sup> Before the close of the period a number of other countries of Europe had followed the British example in adopting free trade. In 1856 these included Sardinia, Belgium, Austria, Sweden, Holland, Denmark, and Tuscany. France charged a duty of \$3.72 per 220 pounds for cotton imported in French vessels and \$6.51 when imported in foreign vessels. Most other countries maintained comparatively low rates.<sup>20</sup>

#### THE DOMESTIC MARKET

In 1805 cotton employed in American manufactures amounted to only 1,000 bags. It increased to 10,000 bags in 1810 and reached 90,000 by 1815, nearly a fourth of the product of the United States in a very favorable year. During the sixteen years following 1816 it was estimated that American consumption increased 600 per cent.<sup>21</sup> By the three-year period 1842-43 to 1844-45 (October 1 to September 30 inclusive) annual average deliveries for consumption in the United States amounted to over 400,000 bales. For the period 1858-59 to 1860-61 they averaged 914,000 bales. About the close of the period the three-year average consumption was about 37 per cent of English consumption and nearly one fifth of world consumption. Practically all of this was domestic cotton. Imports of raw cotton by the United States began to increase rapidly about 1834, advancing from approximately 600,000 pounds to over 13,000,000 pounds in 1845.<sup>22</sup> Even this was not a large proportion of domestic consumption, and apparently the import trade was largely curtailed by the tariff of 1846. Thereafter until the Civil War imports were rarely as much as a million pounds.

A considerable amount of cotton was used in the South throughout the ante bellum period in household manufactures, much of it not reported in the com-

<sup>18</sup> Claiborne, J., *Consumption of Cotton in Europe*, 36-39, 61-63, 66, 79, 92.

<sup>19</sup> Burn, *Statistics of the Cotton Trade*, 24.

<sup>20</sup> For summary of rates by countries, see J. A. Turner's *Cotton Planter's Manual*, 249-251, based on data in a report by the Department of State in the previous year. See United States, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. II), 551-553, 575.

<sup>21</sup> Carey, M., *Addresses of the Philadelphia Society for the Promotion of National Industry*, 215; Friends of Domestic Industry—New York Convention, *Report on the Production and Manufacture of Cotton*, 6.

<sup>22</sup> Data computed from statistics of weekly deliveries for consumption, in United States, Dept. Treas., Bur. of Statistics, *Cotton in Commerce*, 6, 31.

mercial supply. In the census of 1810 Southern States and Territories, not including Maryland, Kentucky, and North Carolina, reported over 12,000,000 yards of cotton goods produced in households. For the years 1850-1857 inclusive consumption south and west of Virginia was estimated at an average of 95,000 bales a year. There was also a small development of cotton manufacturing under the factory system, prophetic of the future.<sup>23</sup>

Development of domestic consumption in the North gradually made New York not only a domestic distributing market but also a market for reëxport. By the year ending September 30, 1825, receipts at New York amounted to 174,465 bales, and exports to 153,757 bales. By the close of the period receipts had increased several fold but this had been largely absorbed by domestic consumption, so that for the three years ending August 30, 1859, exports averaged only 178,734 bales per year out of total receipts (including cotton in transit) averaging 396,-497.<sup>24</sup>

In the year ending August 31, 1860, the relative importance of the principal Southern ports is indicated by the following table, showing the number of bales handled less transshipments between the several ports:<sup>25</sup>

New Orleans.....	2,139,425	Apalachicola, St. Marks, and	
Mobile.....	843,012	other Florida ports.....	192,724
Galveston.....	252,424	Savannah.....	531,219
		Charleston.....	509,308

#### TRENDS OF PRICES

Figure 8 shows the average annual prices of second quality or middling cotton from 1815 to 1860 at New Orleans, the largest spot market in this country during most of the period. Prices in New Orleans represented more closely the prices received by Southern planters than did the prices of New York or Liverpool. For purposes of comparison the chart also shows the curve of export prices.<sup>26</sup> These parallel closely the movement of prices at New Orleans but are usually somewhat higher. The export prices are for all classes and grades of upland cotton, while the New Orleans prices are for seconds or middling. The general swing of cotton prices was downward from the beginning of the period until 1844, with a number of brief interruptions, the most important of which covered a considerable part of the fourth decade. From the low point of 1844 the general trend was upward until the close of the period. While the long downward trend in the first three quarters of the period was in part a reaction from the excessively high prices at the beginning—reflecting the fact that supply was catching up with and even overpassing demand—the trend was also related in part to

<sup>23</sup> Tryon, *Household Manufactures*, 173-182, 295-298; Ellison, *Hand-Book of the Cotton Trade*, 24. See below, Chap. XXXIX.

<sup>24</sup> Calculated from statistics given in Donnell, *History of Cotton*, 109, 464, 474, 488.

<sup>25</sup> *Ibid.*, 492. There were small shipments also from Virginia and North Carolina ports and from such minor ports as Georgetown, South Carolina.

<sup>26</sup> Like the corresponding chart shown for the period 1802 to 1814 inclusive (Chap. XXIX), the curve for New Orleans prices is based on monthly prices compiled from contemporary quotations (See Table 41, Appendix), weighted by percentage of receipts at New Orleans each month for various periods. The curve of export prices is from United States, Dept. Treas., Bur. of Statistics, *Cotton in Commerce*, p. 20.

declining costs of production, due to technical progress, and probably also to a decreasing trend in the price indices of all commodities, reflecting a change in the value of gold.<sup>27</sup> In the last decade of the period cotton prices were probably responding along with general prices to the influence of the California gold discoveries and to the interrelated credit conditions that gave rise to the period of speculative activity culminating in the financial crisis of 1857.

The intervening period between 1815 and 1860, however, included a number of minor price cycles, which notably influenced the economic condition of the cotton producer. The long period of trade restriction preceding and during the War of 1812, though somewhat relaxed in the last two years of the war, coinciding with the rapid expansion of the textile industry in Europe, had created a shortage which was only partially satisfied when the accumulated American stock became

PRICES OF SHORT-STAPLE COTTON, 1815-1860

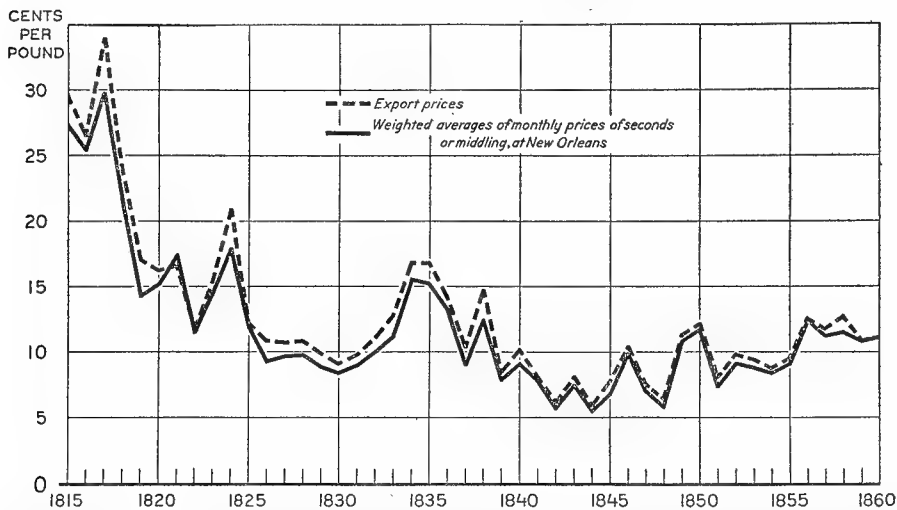


FIG. 8.—Movement of prices of upland cotton, 1815-1860, inclusive, as indicated by annual average export prices and by annual averages of monthly prices at New Orleans, weighted by monthly percentages of marketings. The New Orleans prices were compiled by the author. (See Table 41, Appendix.) The chart was prepared by the drafting section of the Bureau of Agricultural Economics.

once more available.<sup>28</sup> High cotton prices were also integrally related to the wild speculation stimulated by war-time inflation, the mismanagement of the Second Bank of the United States from 1816 to 1819, and the multiplication of local banks and note issues from 1812 to 1817.<sup>29</sup> Annual average prices at New Orleans reached a peak of nearly 30 cents in 1817-18, and in October, 1818, cotton at Savannah sold for 32½ cents. Cotton prices began to break seriously

<sup>27</sup> Indices of annual average prices of all commodities for the United States in the period 1801 to 1840 inclusive, originally computed by Alvin H. Hansen, are published in United States, Bur. of Labor Statistics, *Bulletin* 367, pp. 235-248. Indices for 1841 to 1860 are published in the *Aldrich Report on Wholesale Prices, Wages, and Transportation* (Senate Report, 52 Cong., 2 sess., No. 1394), Pt. I, 9. A similar trend is shown for 1790 to 1922 in Warren, *Farm Prices in New York* (Cornell University, Agric. Exp. Station, *Bulletin* 416), cover page.

<sup>28</sup> *Southern Advocate* (Huntsville, Ala.), Oct. 20, 1826; May 9, 1828.

<sup>29</sup> Bogart, *Economic History of the United States*, 237-239.

in the latter part of 1818, and under the influence of the financial collapse of 1819 plunged downward to an average of only 14.3 cents at New Orleans.<sup>30</sup> The decline of cotton prices and paralysis of credit brought financial ruin to numerous planters who had purchased land and slaves at extravagant prices and incurred excessive indebtedness.<sup>31</sup>

The period of six years beginning with 1819 was characterized by prices which by contrast with those of the preceding period seemed very low, but according to the standards of the years just preceding the Civil War would have been considered very satisfactory. Average annual prices ranged from 11.5 cents in 1822 to 17.9 cents in 1824. Costs of production, however, were still high as compared with the later period, and the low price of 1822 excited much comment and apprehension. Estimates of cost made by Georgia planters resulted in the conclusion that at 11 cents per pound planting capital would earn a net return of only 5.1 per cent, while at 10 cents it would earn but 3.5 per cent. An article in a Louisiana paper of November, 1823, declared that the present prices afforded "no stimulus to increased cultivation."<sup>32</sup>

This point of view was evidently shared by others. In March, 1824, prices began to increase rapidly, reflecting the influence of a bull movement in Liverpool, which rapidly developed into a brief period of intense speculation on both sides of the Atlantic, based on the conviction that cotton production had reached its limit while demand was rapidly increasing and European stocks were very low.<sup>33</sup> The highest prices, however, prevailed in the months of small marketings, reaching 29.5 cents in June, 1825. While the high prices brought little benefit to the majority of planters, who had sold their crops, they stimulated extraordinary exertions in production. Subsequently the year 1825 was referred to as "that unlucky year which entrapped many of our citizens."<sup>34</sup>

The market opened in the early Fall of 1825 with few buyers. Available shipping was scarce and freights high. Many Liverpool and Manchester cotton firms were financially embarrassed, and this reacted on American commercial and financial conditions. For eleven weeks cotton buying in the New Orleans market was "almost totally suspended."<sup>35</sup> Price quotations dropped steadily from 15 cents in November to 9.5 cents by the following July; and throughout the year 1826-27 declined steadily until they reached 8.8 cents. There was a slight stiffening in 1827, due to a severe drouth and ravages of caterpillars,<sup>36</sup> but cotton at New Orleans remained below 10 cents until the early Summer of 1832-33,

<sup>30</sup> *Niles' Register*, XV, 160; cf. *Southern Advocate* (Huntsville, Ala.), Oct. 20, 1826. For monthly and annual average prices at New Orleans, see Appendix, Table 41.

<sup>31</sup> *Niles' Register*, XXVII, 202; XXVIII, 150.

<sup>32</sup> *Ibid.*, XXIII, 216-218; article signed "Cropper, Benson & Co.," in *Louisiana Herald* (Alexandria), Nov. 19, 1823.

<sup>33</sup> *Niles' Register*, XXVIII, 149; Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), p. 6. Some interesting sidelights on this speculation are given in an unpublished monograph, by C. P. Wright, entitled *Trans-Atlantic Packet Lines of New York*, chapter entitled "The Business Career of Jeremiah Thompson, from 1823 to 1828."

<sup>34</sup> *Southern Advocate* (Huntsville, Ala.), May 9, 1828.

<sup>35</sup> *New Orleans Price Current*, Aug. 20, 1825; Watkins, *King Cotton*, 192; *Mobile Commercial Register*, Nov. 8, 1825; *Mercantile Daily Advertiser* (New Orleans), Nov. 14, 1825; *Courier des Natchitoches* (Louisiana), May 1, 1826.

<sup>36</sup> Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), p. 6; *idem*, *King Cotton*, 14.



except for a short period in the Fall of 1828 and again in 1832 when it was a fraction above that figure. At times the prices received by inland planters were below 6 cents. Even under the favorable conditions of the Southwest planters found it difficult to earn a reasonable return on invested capital, and for the first time since the invention of the cotton gin there was a decided agitation for diversification and retrenchment, and for the wider utilization of cotton in bagging, ties, and Negro clothing.<sup>37</sup>

Prices began to improve in the late Spring of 1832-33, and the following Fall the market opened at 18 cents, but with increasing receipts declined rapidly to less than 10 cents. The latter part of the year, however, there was some improvement, which continued steadily throughout 1834-35. This was the beginning of a period of four years of high prices, accompanied by frenzied speculation in cotton, land, and slaves, culminating in the panic of 1837.<sup>38</sup>

Acreage and production had continued to expand even during the previous period of depression, a tendency greatly accelerated during the four years of good prices. Stocks of cotton in the British market continued to increase from year to year until 1845, when they reached a maximum of over a million bales. Then they began to decrease gradually, but several years were required to relieve materially the congestion of the market.<sup>39</sup> Consequently, while the collapse of 1837 was a reflection of the general financial demoralization of that year, cotton was destined to suffer a dozen years of severe depression, due primarily to overproduction.<sup>40</sup> The fairly good prices of 1838 and 1846 were owing to extraordinarily short crops due to drouth, and in the latter year also to the caterpillar. There were times in the middle years of the forties when prices in New Orleans were under 5 cents and local prices to growers were around 3 cents.<sup>41</sup> These conditions were a source of financial ruin to thousands of planters, and gave rise to a notable movement for diversification and retrenchment.<sup>42</sup> Even in the Southwest thousands of slaves brought from older States by their masters or sold by dealers on credit were returned to the State of origin. Many planters carried their slaves to Texas or Arkansas to escape executions for debt.<sup>43</sup> In the Southwest, however, these difficulties were primarily attributable to heavy indebtedness contracted in the earlier period of extravagance, and in spite of low prices average production increased about 88 per cent during the period of depression.<sup>44</sup>

In spite of the increase of production, however, consumption had increased even more rapidly, and the huge accumulated stocks had gradually diminished. During the heavy selling months of 1849 cotton sold around 11 cents. It improved

<sup>37</sup> *Alabama Journal* (Montgomery), Apr. 14, 1826; *Southern Advocate* (Huntsville, Ala.), Mar. 7, May 2, 1828; Wailes, *Address before the Agricultural, Horticultural, and Botanical Society of Jefferson College*, Apr. 24, 1841, p. 23; Niles, *Agriculture of the United States*, 12.

<sup>38</sup> See above, p. 639, and below, p. 899.

<sup>39</sup> James, *Letters on the Culture and Manufacture of Cotton*, 7.

<sup>40</sup> Elliott, *Anniversary Address of the State Agricultural Society of South Carolina*, 21; *Farmer and Gardener*, IV, 22.

<sup>41</sup> Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), pp. 7-9; *idem*, *King Cotton*, 17; *Southern Planter*, VI, 236.

<sup>42</sup> See Chaps. XXXVIII and XXXIX.

<sup>43</sup> *New Orleans Commercial Bulletin*, Aug. 5, 1839.

<sup>44</sup> Comparison of three-year averages centered on the years 1836 and 1849.

somewhat more in the Fall and early Winter of 1850, under the influence of a short crop due to excessive spring rains and floods in the lower Mississippi valley.<sup>45</sup> Prices opened much lower the following year, and during the heavy selling months averaged barely 7 cents. Somewhat better prices prevailed during the three years 1852 to 1854 inclusive, but still averaged less than 10 cents. A backward Spring and unseasonable rains in 1854 led to a stiffening of prices in the late Summer and early Fall of that year. Serious damage to the crop of 1854 on account of heavy rains and gales in September helped to maintain prices at around 9 cents during the heavy selling months of 1855.<sup>46</sup> Prices advanced to above 10 cents in the early Fall of 1855 and continued to advance throughout the next year, until by September, 1857, they were above 15 cents. The fact that this increase occurred in spite of the heavy crops of 1855 convinced many people that the South was in an extremely strong market position. British stocks were low, and consumption advancing rapidly. Even the financial crisis of 1857 did not materially reduce cotton prices. In the last five years of the period cotton sold at prices that were highly remunerative, especially considering the fact that the average annual product of the five years was much larger than it had ever been before.<sup>47</sup> In the Cotton Belt, therefore, as in other parts of the South, the Civil War brought to a close a period of exceptional prosperity.

#### METHODS OF PRODUCTION

In the sixty years after 1800 great progress occurred in methods of producing cotton.<sup>48</sup> Almost everywhere ridge husbandry came to be employed. The ridge was generally formed by throwing from four to six furrows toward the center of the old bed. Sometimes the cotton and cornstalks of the previous year were buried in the bed. In strong lands it was believed necessary to place ridges farther apart than in thin land, the distance varying from six to three feet.

Where fresh lands were available, the majority of planters took no pains to fertilize their cotton fields. Elsewhere, a considerable proportion broke up the stalks of the old crop and plowed them under. As early as 1819 a Mississippi planter, Samuel Postlethwaite, was experimenting with a roller fitted with knives to cut up cotton stalks. The majority of planters employed clubs for this purpose. A contemporary agricultural chemist voiced the belief that the practice

<sup>45</sup> Affleck's *Southern Rural Almanac for 1851 and 1852*, pp. 5, 53.

<sup>46</sup> *Louisiana Courier* (New Orleans), Sept. 1, 1855; Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), p. 13.

<sup>47</sup> Ashworth, *Cotton: Its Cultivation, Manufacture, and Uses*, 27-29; *Louisiana Courier* (New Orleans), Aug. 31, 1857; Aug. 31, 1858; Sept. 1, 1860; McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 116.

<sup>48</sup> The present account of the technique of planting and cultivating upland cotton is based on the following sources and general accounts. On particular points specific references are also cited in the course of the discussion. *American Agriculturist*, I, 218; II, 81, 118; *Southern Agriculturist*, III, 281-283, 338-341; IV, 169-172, 292-294, 563; new series, II, 8; *De Bow's Review*, II, 133-138; United States, Patent Office, *Annual Report*, 1849, *Agriculture*, 171; *Southern Cultivator*, II, 71, 73; VI, 35, 130, 165; VII, 66, 82; VIII, 20, 34, 38, 50, 83-84, 98; XV, 85, 117, 225; Barbee, *Cotton Question*, 85; Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 79; Chambers' premium essay on "Treatment and Cultivation of Cotton," read before the Southern Central Agricultural Association of Georgia in 1852, reprinted in Turner, J. A., *Cotton Planter's Manual*, 13-18; Jeffreys, *Memoir on the Culture of Cotton* (N. C., Bd. of Agric., *Papers*, I), 78-82. The subject of field systems in the Cotton Belt is discussed in Chap. XXXIII.

of plowing in stalks and using seed for fertilizer largely balanced the fertility removed.<sup>49</sup> In the latter part of the period the use of barnyard manure and composts, swamp mud, and occasionally lime was becoming rather general in the older cotton regions. In the last fifteen years of the period the guano mania spread to the Cotton Belt.<sup>50</sup> Under the influence of Liebig, some planters became interested in the analysis of soils and cotton grown on them with a view to determining the desirable relationships of type of soil and soil treatment, and a number of chemists were engaged in this work.<sup>51</sup>

A few planters made a practice of dibbling their cotton, especially in rich land, but the majority planted in the drill. In the earlier time the hoe was mainly used for opening the bed. Later many planters employed a small "scooter" or "bull-tongue" plow for this purpose. Various homemade openers were devised, usually consisting of a piece of timber rounded to fit the bed, and through the center of which a small piece of iron was inserted, serving to open a narrow drill. A few planters employed an implement similar to a roller, but concave in the center so as to fit the bed, with projections which opened holes at regular intervals. In the earlier period seed was planted by hand, three to four bushels to the acre, under the theory that thinning was less arduous than replanting. The later tendency was to sow less seed, and more carefully, so as to avoid much of the laborious thinning and cultivation. Seed planted carefully in a narrow, straight drill admitted of the use of various kinds of horse hoes, and the avoidance of much of the laborious hand-hoeing that characterized the earlier practice. A number of mechanical planters invented during the period were employed by the more progressive.<sup>52</sup> About the close of the Civil War cotton planters so constructed as to combine the operations of opening, sowing, and covering were becoming more widely used. With these a hand and a mule could do the work formerly requiring four hands and two mules, besides economizing seed.<sup>53</sup> In the earlier period seed was covered with the feet or hoes or with the turning plow, but later, with the harrow or a block of wood rounded to fit the bed and fastened to a plow stock. Some planters used a flat board long enough to cover two rows at the same time.

There was great diversity in methods of cultivation. In the earlier years there was a tendency to make more use of the hoe than in later years. Ambitious planters substituted horse-drawn implements as far as possible, and occasionally a planter boasted that he never employed the hoe in his cotton crop.<sup>54</sup> There was a gradual adoption of implements suitable for shallow cultivation, such as the scraper, skimmer, and sweep. The skimmer and sweep greatly economized labor of cultivation, because of the greater width of the furrow covered as com-

<sup>49</sup> Watkins, *King Cotton*, 167; Mallet, *Cotton*, 170.

<sup>50</sup> *Farmers' Register*, VIII, 115, 179, 638; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), p. 82, & App., pp. 9, 38-42. See below, Chap. XXXIII.

<sup>51</sup> For instances, see Mallet, *Cotton*, 7; Summers, *Analysis of the Cotton Plant and Seed*, 11-17; Smith, J. L., *Report on Cotton; Carolina Planter* (1844-5), I, 241-247.

<sup>52</sup> Watkins, *King Cotton*, 76, 109, 175, 260.

<sup>53</sup> Barbee, *Cotton Question*, 87.

<sup>54</sup> Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 79.

pared with the width of common breaking-plows or shovel-plows.<sup>55</sup> These newer implements were better adapted to level land and loamy soils than to rough land and heavy soils. For this reason their use was more general in the alluvial areas of Mississippi, Louisiana, and Arkansas, and in the black prairie of Alabama than in the rolling lands and heavy clay soils of upper Georgia and South Carolina. The scraper, adapted to shaving the bed close to the cotton, economized the amount of hoeing. According to Dr. M. W. Philips, by employing the scraper it was practicable to clean and thin  $1\frac{1}{4}$  acres daily per hand, as compared with only  $\frac{3}{4}$  acre by other methods. Another general practice was "barring off," which was also employed for corn. This consisted in "running around" the cotton row with a bull-tongue plow, the object being to provide a small ditch on each side of the row for drainage and to furnish greater warmth to the roots. This practice usually followed the first scraping, in which dirt was thrown to the cotton. The planting of cotton in the drill made it necessary to thin it. This was accomplished by "chopping out"—that is, the hands cut through the drill with the hoe, leaving one or more plants at distances of twelve inches or more. Some planters preferred to complete the thinning at the first working, others to thin gradually to a "stand." The process was a delicate one, and much thought was devoted to designing a type of hoe and method of use that would accomplish a maximum amount both of thinning and of weeding in one operation, throwing just the proper amount of dirt to the cotton left standing. About the middle or latter part of July the crop was "laid by," and there was an interval of rest until the product began to ripen sufficiently to justify picking.

It was customary to pick the field three times, the several pickings being designated successively the "bottom," "middle," and "top," crops. The middle picking furnished the largest product, and usually the best quality. The entire slave force capable of going into the field was employed. Each hand carried a sack suspended about the waist, in which the cotton was deposited as gathered, and later emptied into a basket or large sheet placed at a convenient location in the row. Attempts to develop mechanical pickers proved unsuccessful.<sup>56</sup> There is evidence that the average picking per hand increased considerably, partly due, as we have noted, to adoption of improved varieties.<sup>57</sup> Before the Civil War 150 to 200 pounds per day was required of full hands, as contrasted with 50 or 60 pounds in the early years,<sup>58</sup> and there were instances of much larger accomplishment. As early as 1830 it was said that hands in Laurens County, South Carolina, could pick 200 pounds of Mexican cotton per day. In 1849 an Alabama planter, by offering premiums, induced his force to pick an average of 350 pounds each per day for three consecutive weeks. In 1839 a Louisiana planter claimed that three of his hands picked respectively 518, 490, and 390 pounds in a day. Three hands on another plantation picked 587, 565, and 497 pounds respectively.<sup>59</sup>

<sup>55</sup> For a description of these implements and an account of their introduction, see below, p. 797.

<sup>56</sup> Watkins, *King Cotton*, 149, 175, 259.

<sup>57</sup> See above, p. 689.

<sup>58</sup> *De Bow's Review*, XVIII, 332-334; *American Farmer*, 1 series, III (1821-2), p. 298; *Southern Cultivator*, III, 100; VII, 164; Robertson, J. A., *Louisiana*, I, 155; Jeffreys, *Memoir on the Culture of Cotton* (N. C., Bd. of Agric., *Papers*, I), 82; Watkins, *King Cotton*, 13, 72, 100, 139.

<sup>59</sup> *Ibid.*, 78, 147, 194.

An Arkansas planter reported an average of 366 pounds in a day. In another case four hands averaged 548 pounds in a day. Still another report, too extreme to be readily accepted, credited four men and two girls with a total of 7,750 pounds "between sunrise and sunset."<sup>60</sup>

After the cotton was gathered, it was placed on temporary scaffolds to dry. Frequently a hand with a rake was stationed on the scaffold to turn the cotton occasionally and to remove trash and dirt. Some believed that unless cotton was wet sunning was injurious, causing a diffusion of oils through the fiber. From the scaffolds the seed cotton was taken to the gin house, and it was thought good practice to allow it to "sweat" for several days before ginning.<sup>61</sup>

After the introduction of Mexican seed a number of planters living near Rodney, Mississippi, in the neighborhood of the Petit Gulf, of whom Dr. Rush Nutt was the most active, began the systematic selection and improvement of Mexican seed, some of which became known as "Petit Gulf." Some years later Colonel Henry W. Vick acquired a reputation for the success of his seed. His example was followed by others. Experiments were conducted in crossing Egyptian cotton with the Mexican with a view to producing long-staple upland cotton. Varieties raised by the Indians in Arizona, and from Nicaragua and other countries, were crossed with the common upland varieties. Experiments were also made with sea-island along the Gulf coast and in crossing it with other classes of cotton. As a result of these activities, during the fourth decade and subsequently a great many new varieties were developed.<sup>62</sup> In some cases they were merely humbugs, or their merits greatly exaggerated, advantage being taken of the credulity of many planters.<sup>63</sup> Some of the new varieties, however, had longer staple, some were characterized by greater freedom from disease, large bolls, numerous bolls, or high yield per acre. According to Dr. M. W. Philips, the older varieties yielded lint weighing only 25 per cent of the total weight of seed cotton. The quantity gathered per day was one fourth less than for the new varieties, and the product per acre 100 to 200 pounds less.<sup>64</sup>

The various plant diseases popularly called "rust" and "blight" were serious sources of loss. These included various fungous diseases generally known as "sore-shin" and "anthracnose," "root rot," and "cotton-boll rot." Various experiments were carried on to determine methods of coping with cotton plant diseases. In South Carolina, for instance, chemical analyses of soils and of cotton were made to ascertain if possible whether soil elements were responsible for rust. The State Agricultural Society tested an invention for decorticating cotton

<sup>60</sup> *Niles' Register*, LVII, 216. For other statements, see Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), p. 154; Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 80; *Southern Cultivator*, XV, 34; XVI, 370; *De Bow's Review*, XII, 74.

<sup>61</sup> *Southern Agriculturist*, new series, III, 387; *Southern Cultivator*, VI, 130.

<sup>62</sup> For varietal names, see *De Bow's Review*, I, 168; II, 280; III, 6; X, 568; XVIII, 208; *Southern Cultivator*, IV, 141; VI, 101; VII, 11; United States, Patent Office, *Annual Report*, 1854, *Agriculture*, 178; *De Bow, Industrial Resources*, I, 120; *Niles' Register*, LXXV, 177; *Southern Agriculturist*, new series, VI, 220; *Farmer and Planter*, VII, 43; *New Orleans Commercial Bulletin*, Aug. 27, 1839; United States Agricultural Society, *Journal*, VIII, 269; *idem, Monthly Bulletin*, I, 13, 20; *Farmers' Register*, VI, 488; IX, 312; Watkins, *King Cotton*, 109, 147, 165, 170; *Baton Rouge Gazette*, Oct. 6, 1827, advertisement.

<sup>63</sup> Thorpe, "Cotton and Its Cultivation," in *Harper's Monthly Magazine*, VIII, 449.

<sup>64</sup> Watkins, *King Cotton*, 172.

stalks in the hope that this would ameliorate the tendency to rust, but it was found ineffective.<sup>65</sup> Of the numerous kinds of insect enemies, the cotton caterpillar, or "army worm," was perhaps the most dreaded. Sometimes the crops of entire districts were destroyed by this enemy, as in 1804, 1827, and 1839. In 1846 they spread throughout the Cotton Belt, and such destruction was never before witnessed. In 1853 there was serious loss from the army worm and from black rot. Cutworms attacked the plant when it was young. The "cotton louse" appeared about the last of May and continued to injure the plant for several weeks. The ant was also a source of loss, and the boll worm pierced the young cotton bolls, causing them to fall off.<sup>66</sup> Attempts were made to eradicate these pests by burning old fields, by rotation of crops, and by running turkeys and other fowls in the fields. Paris green was employed by some planters.<sup>67</sup>

#### GINNING AND PREPARATION FOR MARKET

The crude gin invented by Whitney was soon greatly improved by ingenious inventors.<sup>68</sup> Mechanics in the neighborhood of Natchez, Mississippi, succeeded in developing devices to remedy the tendency of the early gins to injure the fiber, and until similar improvements were adopted elsewhere, Natchez cotton commanded a considerable premium on account of its superior preparation.<sup>69</sup> At first largely the product of local mechanics, the manufacture of gins became an established industry. As early as 1807 Eleazer Carver began making cotton gins in Mississippi. He developed improvements which prevented the tearing of the fiber as in the older gins, and in time also contrivances were added for moting the cotton. Later the Carver factory was removed to Bridgewater, Massachusetts, but continued an important source of supply of Southern gins. By 1825 there were a number of small gin factories in the South, and later some large factories, such as those of Daniel Pratt, at Autauga Creek, Alabama, and Samuel Griswold, at Clinton, Georgia, which became extensive sources of supply. It is said that by 1860 most of the gins used were manufactured in the South.<sup>70</sup>

Many improvements were made in the general mechanism of the gin, including arrangements for removing a larger proportion of the dirt and trash. In the latter part of the ante bellum period the attention of three hands to each gin was usually requisite, and the average daily product per gin varied from 1½ to 6 bales. About 1845 it was possible to gin a crop of 300 to 500 bales with two gins, costing each from \$75 to upwards of \$100.<sup>71</sup> The general tendency seems to

<sup>65</sup> Halle, *Baumwollproduktion*, I, 87; *Louisiana Journal* (St. Francisville), Aug. 13, 1825; Smith, J. L., *Report on Cotton*, especially pp. 12-14; Agricultural Society of South Carolina, *Original Communications*, 51-55.

<sup>66</sup> Watkins, *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9), pp. 7, 10-11; *idem*, *King Cotton*, 14, 17, 19; *Southern Planter*, VI, 236.

<sup>67</sup> *De Bow's Review*, III, 340; XI, 7; De Bow, *Industrial Resources*, I, 171; *Southern Cultivator*, VI, 172; VIII, 6, 36; XVI, 345; Watkins, *King Cotton*, 78.

<sup>68</sup> Cf. instances mentioned by Watkins. *Ibid.*, 139, 174, 260; *Farmer and Planter*, V, 85; Claiborne, W. C. C., *Official Letter Books*, II, 344; III, 135.

<sup>69</sup> *Alabama Republican* (Huntsville), Feb. 15, 1822.

<sup>70</sup> Watkins, *King Cotton*, 46, 101, 142, 166; Abernethy, *Formative Period in Alabama*, 63; *United States Census*, 1860, *Agriculture*, p. xxvi.

<sup>71</sup> Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 80.

have been toward ginning too rapidly, thus injuring the fiber.<sup>72</sup> About 1830 steam power was applied to the saw gin,<sup>73</sup> but it did not become widely used before the Civil War.

It early became customary to pack cotton in bags, or bales, some round, but usually square. There was no standard weight for upland cotton bales. In general there was a tendency for them to be heavier in the Southwestern than in the Southeastern States and for the average weight everywhere to increase. According to Woodbury, in 1790 the bale in the Southeastern States weighed only about 200 pounds. In 1824 all bales of American cotton imported at Liverpool averaged 266 pounds, and by 1832 they averaged 319 pounds. In 1835 the bales used in the South Atlantic States averaged 300 to 325 pounds, but those from the Gulf States 400 to 450 pounds. The bales of Texas cotton shipped to New Orleans in 1833 weighed 400 to 500 pounds each. By the forties the majority of Texas bales weighed 500 pounds.<sup>74</sup> Watkins estimates the average weight for the entire South by decades as follows:<sup>75</sup>

1790-1800.....	225	1830-1840.....	368
1800-1810.....	247	1840-1850.....	415
1810-1820.....	269	1850-1860.....	436
1820-1830.....	308		

In the earlier years cotton was packed in bags by a Negro stamping with his feet or by employing a wooden tamper. As late as 1842 the latter method was still employed by small up-country planters of South Carolina and Georgia. It required one man 14 days to pack 14 bags of cotton by this method, whereas with a screw press, two men, a boy, and a pair of mules could accomplish the same task in a day.<sup>76</sup> About 1779 square bales were made in Mississippi by employing a rude lever press. In 1801 William Dunbar ordered from Philadelphia a cast-iron screw press. The lever press was soon generally replaced by wooden and later by iron screw presses attached to long sweeps, although some patent presses still retained the lever principle. On some plantations hydraulic presses were introduced in the latter part of the period, and steam was also being applied. Well-equipped plantation presses were able to pack from 40 to 50 bales a day.<sup>77</sup>

Hemp bagging early came to be used for covering, and hemp rope to secure it. At times there was considerable dissatisfaction because of the high prices of this material and agitation for the substitution of cotton bagging manufactured in the cotton States, especially in periods of low prices for cotton. There was also a movement to employ iron hoops instead of rope, but it is said that the tendency

<sup>72</sup> Halle, *Baumwollproduktion*, I, 91; *De Bow's Review*, II, 138; III, 11; *American Agriculturist*, II, 173.

<sup>73</sup> *United States Census*, 1860, *Agriculture*, 169.

<sup>74</sup> Woodbury, *Report on Cotton*, 5; Watkins, *King Cotton*, 215-217.

<sup>75</sup> *Ibid.*, 299.

<sup>76</sup> *Southern Agriculturist*, new series, II, 515.

<sup>77</sup> Mississippi, Agricultural and Geological Survey, *Report* (Wailes, 1854), pp. 173-176; *North Carolina Planter*, I, 24; *American Agriculturist*, II, 173; *Southern Cultivator*, V, 136; VI, 173; XV, 212, 239; *De Bow's Review*, II, 139; III, 12; IX, 464; X, 335; Halle, *Baumwollproduktion*, I, 92; *The Halcyon and Tombeckbee Public Advertiser* (St. Stephens, Ala.), June 8, 1822.

was checked by the development of compresses at the ports.<sup>78</sup> Since ocean freight rates were based on cargo space rather than weight, it became desirable to compress bales into smaller compass. As early as 1832 a large compress was constructed in New Orleans, and soon all the principal ports were equipped with them.<sup>79</sup>

Much less care was devoted to preparation of upland cotton for market than in the case of sea-island cotton. About 1821 Alabama cotton was particularly notorious and commanded the lowest prices paid for American cotton. As compared with Georgia cotton it was subject to a discount of 3 to 5 cents a pound in foreign markets. The carelessness was probably due in large measure to the newness of the country.<sup>80</sup> It was believed by some planters that in the case of low-grade varieties the extra attention required to improve quality was not justified by resulting difference in price, since the English manufacturer was equipped to clean the cotton by machinery. Others asserted it was highly profitable to prepare cotton carefully, thereby adding 2 or 3 cents per pound.<sup>81</sup> A tendency toward fraudulent packing early appeared,<sup>82</sup> necessitating legislation. In 1802 Savannah merchants entered into an agreement to have all cotton repacked which came to that market, in order to detect false packing, make country ginner more cautious, and maintain the reputation abroad of Georgia cotton. Because of the great expense this example was not generally followed nor probably long continued. In 1803 the inspection of cotton was provided for in Mississippi.<sup>83</sup> In 1817 the editor of *Niles' Register* declared, "We hear of frequent frauds in the package of cotton, in the south. The legislatures of the cotton growing states ought to protect the character of their great staple."<sup>84</sup> About the same time the Georgia legislature provided heavy penalties for false packing, and Southern newspapers were said to have adopted the policy of publishing the names of those found guilty of the practice.<sup>85</sup> As late as 1859, however, a cotton merchant was deploring willful frauds by putting sand, rocks, seed, and even water into the cotton.<sup>86</sup>

#### ECONOMIC CHARACTERISTICS OF COTTON PRODUCTION

Extensive methods of cultivation, as we have noted, were almost universally employed. A maximum crop per hand was the goal that the planter sought to obtain. Occasionally some prophet arose who urged the ideal of a maximum crop per acre. During the late years of the fifth decade a protracted controversy occurred in the agricultural press between Dr. N. B. Cloud, of Alabama, and Dr. M. W. Philips, of Mississippi. The former advocated the planting of not more

<sup>78</sup> *Niles' Register*, XXIII, 216, 242; Watkins, *King Cotton*, 141, 146, 243; *Southern Advocate* (Huntsville, Ala.), Oct. 26, 1827; cf. discussion in De Bow, *Industrial Resources*, I, 160.

<sup>79</sup> Watkins, *King Cotton*, 106, 194.

<sup>80</sup> *Alabama Republican* (Huntsville), Sept. 7, 1821.

<sup>81</sup> *Southern Cultivator*, II, 7; *De Bow's Review*, I, 234; III, 11.

<sup>82</sup> Dumbell, "Cotton Market in 1799," in *Economic Journal, Supplement*, Jan., 1926, p. 146.

<sup>83</sup> *Carolina Gazette* (Charleston), Apr. 8, 1802; *Mississippi Session Laws*, 1803, p. 2.

<sup>84</sup> XII, 239. For other instances, see *The Halcyon and Tombeckbee Public Advertiser* (Greensborough, Ala.), Dec. 20, 1823.

<sup>85</sup> *Georgia Laws* (Prince, 1822), p. 369; *Niles' Register*, XII, 272.

<sup>86</sup> *Farmer and Planter*, X, 276.



than 4 acres to the hand, about one half to cotton, on land previously bare-fallowed and afterwards heavily manured broadcast. He also laid off his rows 3 feet apart one way and crossed them with furrows 5 feet apart. At the intersections he applied additional manure or compost. He planted 8 or 10 seeds rolled in ashes or salt to the hill, subsequently thinning the crop to 1 plant per hill. By these methods he avoided the practices of "*bar-shearing, scraping, and chopping out,*" which he believed injurious to the tender plants as well as time consuming. He believed the small acreage per hand more than compensated by the fact that the heavy manuring was "*an infallible insurance*" for a yield of 5,000 pounds of seed cotton per acre.<sup>87</sup> Cloud's proposal provoked a good deal of discussion. Philips questioned whether the high yield could be regularly attained, and particularly whether it would be economical. He advocated, rather, the employment of all possible labor-saving devices, as a result of which policy he was able to cultivate 10 acres of cotton, 9 of corn, and several acres of small grain to the hand.<sup>88</sup>

It is significant that Philips voiced the natural sentiments of the Southwest where fresh and fertile land was abundant, while Cloud reflected the influence of growing exhaustion of soil in the older Cotton Belt. Nevertheless, the latter's suggestions were not widely accepted even there.<sup>89</sup> The temptation was to plant as much cotton as could be harvested by the close of the year, but many planters were so carried away by their desire to make a large crop that they did not finish their picking before February or March. Corn and cotton were largely competitive in their labor requirements. There was a short respite from both after they were "laid by" in July until the beginning of cotton picking about the first of September. A part of this interval was frequently occupied in "pulling fodder" for winter.<sup>90</sup>

The economic ratio of land to labor in the production of short-staple cotton varied in accordance with the extent to which diversified industry prevailed. In very hilly portions of South Carolina, Georgia, and Alabama, and the remote interior of Mississippi, where much terracing was necessary, only about 3 acres of cotton per hand was customary, the remainder of the labor force being employed in the various industries essential to providing for the wants of the family.<sup>91</sup> In the Southwest, by reason of the greater ease of cultivation on the level lands of the prairies and alluvial regions, the greater inclination to adopt labor-saving methods, and perhaps the more energetic methods of driving Negro laborers, the average acreage per hand tended to run higher than in the older cotton areas. The accessibility of many planters in the Southwest to the provisions of northern

<sup>87</sup> From Cloud's own statement, reprinted from the *Albany Cultivator*, in J. A. Turner's *Cotton Planter's Manual*, 53-70.

<sup>88</sup> *Southern Cultivator*, V, 109, 155, 157; VI, 86; VIII, 34; *De Bow's Review*, III, 5; *American Agriculturist*, I, 363; *Agriculturist*, IV, 64, 71; William Summer's report on cotton to the Newbury [S.C.] Agricultural Society, reprinted from the *South Carolinian*, in J. A. Turner's *Cotton Planter's Manual*, 46-48; *Farmer and Planter*, II, 51.

<sup>89</sup> *De Bow's Review*, III, 5.

<sup>90</sup> *American Agriculturist*, III, 25, 181; *Southern Agriculturist*, IV, 196; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 144; 1850, p. 187; *Southern Cultivator*, XV, 297, 329; XVI, 60, 92, 122, 154, 188, 218, 283, 347.

<sup>91</sup> *De Bow's Review*, V, 369.

States brought cheaply by water transport also contributed to this result.<sup>92</sup> Where land was level and free from stumps, planters were able to plant 10 acres of cotton and 6 acres of corn to the hand. A few planters with exceptional organization, using a larger number of horses than was ordinary, managed to plant up to 20 acres to the hand. Some cultivated 9 acres of cotton and 5 of corn per hand, but 6 acres or less of corn per hand was usually regarded as an insufficient provision for laborers and work stock. In the alluvial areas, however, the smaller acreage was offset by larger yields. In rolling lands or where considerable attention was given to animal husbandry, the cotton crop was limited to from 5 to 7 acres per hand.<sup>93</sup> The amount of land cultivated per hand was, of course, much less than the amount normally cultivated by each family since the Civil War; but it is doubtful if the area cultivated by a Negro family at present is much greater than under the rigid discipline of the slavery régime.

There was undoubtedly progress during the ante bellum period in the number of acres of cotton raised per hand. In an anonymous article written in 1840, probably by James H. Hammond, of South Carolina, the author declared:<sup>94</sup>

"Every body knows that a hand now makes at least 20 per cent more cotton than he did ten years ago. . . . Every planter knows of this change. . . . it has been gradual, and based upon the sure results of practical experience. The introduction of mule-labour and improvement in ploughs, has done much to enable us to cultivate so much—but it is well known we do not cultivate so thoroughly as formerly. Land is not broken up flush—even listing is gone out of vogue with a great many—and hoes are seldom used in bedding except in low places. Shaving down and drawing up has given way to the more rapid progress of hoeing across—and some planters, and the best planters I know, have ceased to hoe corn, and do not hoe cotton more than we did corn formerly."

It was the general custom in the upland part of the Cotton Belt to work a horse to every 2 hands. Some planters worked only 1 horse to 3 or even 4 hands. Dr. M. W. Philips urged that a planter could profitably employ a horse or mule for each hand. It is doubtful, however, if the extra acreage which he assumed could be cultivated would have repaid the expense of an extra horse or mule.<sup>95</sup>

#### YIELDS PER ACRE AND PER HAND, AND COSTS

It is probable that in individual instances as high yields per acre were realized in the early years of the period as in the later years. Shortly after the War of 1812 it was reported that good land in the upper country of South Carolina would yield a bale of 300 pounds per acre, with a usual range of 100 to 300 pounds, and 60 to 100 for inferior soils. In Alabama yields of 800 to 1,000 pounds of seed cotton were obtained.<sup>96</sup> It is probable that by introduction of new varieties

<sup>92</sup> *Farmer and Gardener*, I, 247; *Niles' Register*, XXXII, 82, 161; Warden, *Account of the United States*, II, 482; III, 38.

<sup>93</sup> *Southern Agriculturist*, IV, 294; *American Agriculturist*, III, 25; *Southern Cultivator*, I, 188; IV, 143; VI, 130; VII, 59, 66; VIII, 34; *De Bow's Review*, VI, 149; X, 625.

<sup>94</sup> *Carolina Planter* (1840), p. 34.

<sup>95</sup> *Southern Agriculturist*, III, 281; *American Agriculturist*, III, 25; *Southern Cultivator*, I, 188; V, 149; VII, 66; *De Bow's Review*, VI, 149; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 188.

<sup>96</sup> Warden, *Account of the United States*, II, 442-444; *Niles' Register*, XXXII, 82, 161; *Farmer and Planter*, VIII, 275.

average yields increased. The general trend of the industry to new and fertile lands of the Southwest was probably largely offset by the decline of yields in the older cotton producing areas.<sup>97</sup> In the new and fertile lands of the Southwest there were instances of much more than a bale to the acre. In 1840 an eyewitness reported that the bottom lands of the Red river had yielded as much as two 500-pound bales. About 1852 De Bow estimated the average for the South as a whole at 530 pounds of seed cotton.<sup>98</sup>

The combination of larger acreage per hand and higher yields gave the newer regions of the Southwest a widely recognized advantage in cost over the older regions of the Southeast. Governor Hammond, of South Carolina, declared in 1842 that South Carolina and most of Georgia could not grow cotton "with a living profit" at an average price of 8 cents net on the plantation, while in the Gulf States such a profit could be derived at only 6 cents. Cotton selling at 8 cents would yield a profit of only \$61 per hand in South Carolina as compared with \$110 to \$140 in the Southwest.<sup>99</sup> Nearly ten years later he asserted that for seven or eight years prices of cotton had not been sufficient to yield South Carolina planters more than 4.5 per cent net on their capital. On lands that would average 2,000 pounds ginned cotton for each full hand it was possible to realize 7 per cent at a net price of 5 cents per pound. There was an abundance of land in the South and Southwest on which "all the cotton which the world will consume for many generations to come may be grown at this rate." On the other hand, in South Carolina there was but little land which would average 2,000 pounds per hand. Hammond believed the average would not exceed 1,200 and that a great many planters did not grow over 1,000 pounds. At a farm price of 5 cents this would yield a net return of only 2 per cent, and at 1,200 pounds per hand, but 3 per cent.<sup>100</sup>

Opinions differed greatly, however, on the requisite cost of production, partly on account of differences in methods of calculation. Thus, in 1842 a convention of planters at Mobile agreed unanimously that cotton could not be produced at less than 8 cents a pound.<sup>101</sup> On the other hand, about 1844 a contemporary political economist estimated the cost at only 3 cents.<sup>102</sup> Solon Robinson made a detailed estimate of the cost of cotton production on the 4,200-acre plantation of Colonel Williams, at Society Hill, South Carolina. He concluded that the crop cost a little less than 4.7 cents a pound, allowing 7 per cent interest on capital invested, and that had the crop sold at 7 cents, which was about the actual sale price, the planter would have earned an additional 3 per cent. On an Alabama plantation of 1,100 acres Robinson estimated that cotton sold at 6 cents net would pay expenses, including interest on capital at 7 per cent, and allow the owner about \$1,000 for managing the business.<sup>103</sup> The estimator in each case gave the

<sup>97</sup> See report to the Newbury Agricultural Society, reprinted in J. A. Turner's *Cotton Planter's Manual*, 47.

<sup>98</sup> *Carolina Planter* (1840), p. 113; Ellison, *Hand-Book of the Cotton Trade*, 18.

<sup>99</sup> *Niles' Register*, LXII, 87; cf. *ibid.*, XXXII, 161.

<sup>100</sup> Address delivered before the South Carolina Institute, Nov. 20, 1849, p. 5; cf. *Niles' Register*, X, 355.

<sup>101</sup> *Ibid.*, LXII, 71; cf. *ibid.*, XXIII, 242.

<sup>102</sup> Ware, *Notes on Political Economy*, 103.

<sup>103</sup> De Bow, *Industrial Resources*, I, 162.

total yield but not the yield per acre. Presumably, however, he figured on a normal or average crop.

#### USES OF COTTON SEED

In the earlier years many planters regarded cotton seed as a nuisance. Even as late as 1860 Hilgard noted that planters in the Mississippi bottoms threw seed into the bayous.<sup>104</sup> About 1840, however, many South Carolina planters were purchasing seed for fertilizer, paying as high as 15 to 20 cents a bushel.<sup>105</sup> Various experiments were conducted for feeding stock with cotton seed boiled with root crops, and some planters made this a regular practice.<sup>106</sup>

The possibilities of using the constituents of cotton seed were early suspected. According to Watkins, the first discovery of cottonseed oil in the United States was made by a Moravian, Doctor Otts, of Bethlehem, Pennsylvania, who in 1768 sent a sample of oil to the American Philosophical Society. He had heard that it was used in the West Indies as a remedy for colic.<sup>107</sup> About 1800 William Dunbar, of Mississippi, had a screw press manufactured in Philadelphia with which he intended to manufacture cottonseed oil. In 1818 experiments were made in New Orleans in burning cottonseed oil in lamps. In 1823 Professor Olmsted, of the University of North Carolina, demonstrated the utility of cottonseed oil for that purpose.<sup>108</sup> As early as 1821 experiments in Massachusetts indicated the advantages of cottonseed cake as feed for stock. About 1829 Messrs. Follet and B. R. Smith, of Petersburg, Virginia, invented a machine for hulling cotton seed. Oil was expressed and used for painting houses and the cake fed to stock. A number of other patents for hullers were taken out in the next few years.<sup>109</sup> In the early thirties several cottonseed factories were established, but the industry had not yet obtained a foothold, and experiments continued to be carried on during the next two decades. A New Orleans company spent many years in experimenting with different kinds of machinery.<sup>110</sup> In 1857 refined cottonseed oil was put on the New Orleans market for illuminating and lubricating purposes. About the same time several oil mills were in operation at New Orleans, and others had been established at Memphis, St. Louis, and Providence, Rhode Island. Before the close of the period, therefore, cotton seed was coming to have a commercial value, and was even being shipped abroad.<sup>111</sup>

<sup>104</sup> Mississippi, Geological Survey, *Report* (Hilgard, 1860), p. 245.

<sup>105</sup> *Carolina Planter* (1840), p. 25; *Farmers' Register*, VIII, 97; *Cahawba Press and Alabama State Intelligencer*, Feb. 17, 1821.

<sup>106</sup> *Southern Cultivator*, I, 71; Watkins, *King Cotton*, 167.

<sup>107</sup> *Ibid.*, 163.

<sup>108</sup> Shue, "The Cotton Oil Industry," in *Miss. Hist. Soc., Publications*, VIII, 266-267 n.; Watkins, *King Cotton*, 57.

<sup>109</sup> *Cahawba Press and Alabama State Intelligencer*, Feb. 17, 1821; *Southern Agriculturist*, II, 563; Watkins, *King Cotton*, 78, 102, 170.

<sup>110</sup> *Ibid.*, 58, 77, 170, 199; Walker, C. I., *History of the Agricultural Society of South Carolina*, 9; *Southern Agriculturist*, VI, 389; *American Farmer*, 1 series, II (1820-1), p. 99; *Southern Cultivator*, III, 111.

<sup>111</sup> *De Bow's Review*, XVI, 205; XXI, 162; XXVII, 221, 237; cf. United States, Dept. Agric., *The Cotton Plant* (Exp. Stations, *Bulletin* 33), p. 366; Watkins, *King Cotton*, 199, 260, 270; Mississippi, Geological Survey, *Report* (Hilgard, 1860), p. 245; United States Agricultural Society, *Monthly Bulletin* I, 86.

## LOCAL MARKET ORGANIZATION AND METHODS

After the beginning of commercial production the existing marketing organization for the older staples was employed for a time. Rice and indigo factors of the South Carolina coast and tobacco merchants of North Carolina and Virginia purchased the crop outright or consigned it to correspondents in Great Britain.<sup>112</sup> In time the factor became a specialist in the marketing of cotton. He was usually located in one of the great export towns, such as Charleston, Savannah, Mobile, and New Orleans.

By far the greater proportion of Southern cotton moved through those four ports, and they were the centers of the greatest activity in the buying and selling of cotton. In 1851 Mobile boasted 42 fireproof brick warehouses, capable of storing 310,000 bales, and 12 compresses, with a capacity of 7,000 bales a day.<sup>113</sup> A little cotton was hauled from the back country of the southeastern States to Virginia and Pennsylvania markets, and some Tennessee cotton went up the Ohio river and through New York and Pennsylvania canals to interior factories, and also to Philadelphia and New York. A good deal of cotton was shipped from Memphis up river to Louisville and Cincinnati. Between 1853 and 1856 cotton received overland by New York, Baltimore, and Philadelphia averaged 10,000 to 14,000 bales a year.<sup>114</sup>

The greater part of the Southern crop produced on plantations was shipped to the ports on consignment to factors, who sold it for the customary commission of 2.5 per cent. Small farmers had to do business with local merchants who made advances on the crop. The buying function came to be carried on largely by brokers in the port cities, who acted in the interest of foreign dealers and manufacturers. As in the case of the older staples, the cotton factor maintained with respect to the planter the joint relationship of commission merchant and banker, selling his cotton and crediting the proceeds to an account which was frequently overdrawn for the purchase of slaves and other commodities. Not infrequently the factor served as a purchasing agent in obtaining various kinds of commodities needed by the planter, for which a second commission of 2.5 per cent was charged. A few planters maintained the older custom of consigning the product direct to Liverpool or New York.<sup>115</sup> Factors were sometimes tempted to act in the double rôle of seller and buyer of cotton. An article published in 1858 complained:<sup>116</sup>

"As it is strongly suspected that many cotton Factors are also cotton *Speculators*, having interests directly opposed to the interests of the planters and interior shippers, it behooves the latter to scan with a suspicious eye, the singular and improbable statements and estimates of the supply of cotton, put forth by the former."

<sup>112</sup> Stone, *Influence of the Factorage System on Southern Agriculture* (South in the Building of the Nation, V), 398-404.

<sup>113</sup> Watkins, *King Cotton*, 148.

<sup>114</sup> Proceedings of the Richmond Commercial Convention of 1851, quoted in *ibid.*, 259; Ellison, *Hand-Book of the Cotton Trade*, 23.

<sup>115</sup> *Hunt's Merchants' Magazine*, IV, 221; *De Bow's Review*, XXV, 713; *Southern Cultivator*, VIII, 24; Du Bose, *William Lowndes Yancey*, 77; Abernethy, *Formative Period in Alabama*, 89.

<sup>116</sup> *Farmer and Planter*, IX, 159.

The evolution of the cotton plantation system after the development of the cotton gin was in the direction of a more capitalistic and speculative type of organization even than had prevailed in the colonial period. There was a greater degree of dependence on purchased goods, land purchases probably constituted a more important element in the capital account, slaves were more costly, and the spirit of speculation, particularly in the newer areas, more prevalent and intense. Hence credit was probably used and abused more extensively even than in the colonial period.<sup>117</sup>

After the gradual breaking away from the commercial dependence on England there was naturally an attempt to build up a system of domestic credit in the newly forming Cotton Belt. About the beginning of the nineteenth century South Carolina developed a banking system based largely on State credit. In 1801 there were two banks in South Carolina. By 1805 there were 11 banks in the Southern States, Louisiana and Kentucky having one each. By 1811 there were 18 banks in the South and by 1815 the number had increased to 39. The approximate number of banks in the Cotton Belt at various periods is shown by States in Table 23.

TABLE 23.—*Banks in the Cotton Belt at various periods*<sup>1</sup>

	1820	1830	1835	1840	1850	1860
North Carolina.....	3	3	?	10	19	30
South Carolina.....	5	5	4	14	14	20
Georgia.....	4	9	23	39	18	29
Florida.....	.	1	2	5	?	2
Alabama.....	3	2	5	?	1	8
Mississippi.....	1	1	10	?	1	2
Louisiana.....	4	4	41	47	28	13
Arkansas.....	.	.	..	10	..	..

<sup>1</sup> Dewey, *Banking in the South (South in the Building of the Nation, V)*, 461-462. According to Professor Dewey, the table is only approximately correct.

A large proportion of these institutions, however, were located at seaports, and engaged mainly in commercial banking, rather than directly financing the growers. In fact, it may be said that in general the banking systems of the Southern States were successful in the degree that they confined their activities to commercial banking; attempts to meet directly the needs of the farming classes for capital largely failed. Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas, in the Cotton Belt, as well as Tennessee, Kentucky, and Missouri, all suffered from disastrous experiments in the early pioneer period in attempting to develop banking systems capable of providing direct credit for the benefit of agricultural interests. In some of these States—notably in Florida, Alabama, Mississippi, and Arkansas—the discouragement of the early experience prevented the development of banking systems of wide influence prior to the Civil War. Other States, such as Louisiana, profiting by early disastrous experiences, established fairly conservative systems of commercial banking before the Civil

<sup>117</sup> This point of view is developed in an unpublished thesis by A. N. Moore, *History of Agricultural Credit*, Chap. II; cf. Hildreth, *Despotism in America*, 112.

War. South Carolina maintained the sound system of commercial banking established early in the nineteenth century, and Virginia was almost equally successful. In North Carolina and Maryland, after certain vicissitudes connected with the attempted promotion of internal improvements, systems of commercial banking were successfully established. The banking facilities of the South constituted a source of credit to the general agricultural interests of the South, mainly indirectly through the factorage system.<sup>118</sup>

A considerable part of the credit in the South was furnished in one way and another by planters themselves. Plantations were bought on long payments and slaves were bought on credit, mortgages on land and slaves being given as security. The practice of individual endorsement was prevalent, and many a planter was bankrupted by endorsing the notes of friends.<sup>119</sup>

In the Cotton Belt the factor became the most important immediate source of credit advances. The colonial practice of the factor importing and dealing in slaves and selling slaves on credit had been largely discontinued, and the internal trade was too disreputable for this highly respectable class to engage in. The factors merely loaned money to planters to purchase from slave dealers. The latter also sold slaves on credit to purchasers, and sometimes advanced money on slaves. The greater part of the goods advanced and money loaned by factors was informally secured by the crops, although the crop lien system was not fully developed until after the Civil War. Planters were allowed to draw bills of exchange on security of their crops, which were sometimes discounted at banks, on acceptance by the factors, usually at a commission of 2.5 per cent besides interest, but often higher.<sup>120</sup> Factors charged interest varying from 8 to 12 per cent, sometimes on the face of the loan, sometimes on money actually received by the planter. Charges were often much higher, particularly in the earlier years of rapid expansion. In 1824 it was stated that Louisiana planters were paying from 10 to 30 per cent for "indulgence." Planters were urging the legislature to provide "cheap money," a measure which the merchants were strongly opposing.<sup>121</sup>

In addition to the formal charges of interest and commissions there was a much larger element of interest charges in the form of credit prices for goods purchased which were higher than cash prices.<sup>122</sup> The exclusive right to sell the planter's crop was made the condition on which the factor furnished credit. The planter's absolute dependence was intensified by the penalty commission clause of the factorage contract, whereby the planter not only agreed to consign his entire crop to the factor, but also guaranteed that the crop would not fall below a

<sup>118</sup> Dewey, *Banking in the South* (*South in the Building of the Nation*, V), 461-473; *Hunt's Merchants' Magazine*, IX, 372; XIX, 410; XXVIII, 105; *American Farmer*, 1 series, X (1828-9), p. 273; *De Bow's Review*, VIII, 39; X, 199.

<sup>119</sup> Phillips, U. B., *Plantation and Frontier*, I, 176; *Southern Cultivator*, XVI, 354; *American Farmer*, 1 series, X (1828-9), p. 34.

<sup>120</sup> Du Bose, *William Lowndes Yancey*, 78; *De Bow's Review*, VII, 412; XVIII, 359; XXIII, 375; XXV, 714; *Hunt's Merchants' Magazine*, IV, 224; Hammond, M. B., *Agricultural Credit and Crop Mortgages* (*South in the Building of the Nation*, V), 457-461; Stone, "Cotton Factorage System," in *American Historical Review*, XX, 561; Buck, *Anglo-American Trade, 1800-1850*, pp. 66-80.

<sup>121</sup> *Louisiana Herald* (Alexandria), Mar. 3, 1824.

<sup>122</sup> Moore, A. N., *History of Agricultural Credit*, Chap. II (Unpublished thesis).

certain number of bales under penalty of paying the commission on each bale of the shortage. This bound the planter still more strongly to the one-crop system.

In addition to commissions and interest on advances, there were various charges incident to the shipment and handling of the cotton crop, such as for freight, storage, insurance, drayage, weighing, sampling, and repairing bales. The factor was supposed to charge merely at cost for these services, but in time the various charges became fixed by custom, and factors often made handsome incomes from them.<sup>123</sup>

Naturally this system of marketing was unfavorable to the development of interior concentration markets, and there was not a great deal of progress in that direction until after the Civil War. Even before the coming of the railways, however, cotton produced in areas above the fall line tended to be sold at towns located at the head of navigation, such as Fayetteville, Columbia, Augusta, Milledgeville, Macon, Columbus, Montgomery, Shreveport, and Nashville.<sup>124</sup> Memphis became the most important interior market. For the year ending August 31, 1860, its shipments amounted to 391,918 bales.<sup>125</sup> The building of railways stimulated the growth of the interior cotton business at these and other points. The development of interior banks was having a similar tendency. To some extent they broke the dependence of planters on port factors. Nevertheless some of the business at the interior markets was carried on by factors. Disastrous periods like the panic of 1837 forced interior banks themselves to engage more or less in the cotton business in order to protect themselves. About 1839 banks in interior towns of Alabama and Mississippi had become the principal purchasers or shippers of cotton, displacing the merchants in large measure.<sup>126</sup>

Cotton factors sometimes bought on their own account or as agents for others, but in the later years of the ante bellum period it is probable that the bulk of the purchases were made from factors as agents for the planters by resident purchasing agents representing American and British firms, who were sometimes merchants and sometimes manufacturers.<sup>127</sup>

Progress in methods of transport and marketing, particularly the former, were responsible for the fact that there was a gradual tendency for the product to reach the ports earlier in the season, as shown by Table 24 of monthly receipts at New Orleans for various periods.

In the period 1823-24 to 1827-28 inclusive average monthly receipts from September to December inclusive were only 19.5 per cent of the total receipts, but in the period 1852-53 to 1858-59 inclusive average receipts for the same months were 46.8 per cent of the total. In 1823-24 to 1827-28 receipts from January to April inclusive were 59.6 per cent of the total, but in 1852-53 to 1858-59 only 45.9 per cent. Finally, in the remaining four months receipts in the earlier period were 20.9 per cent of the total, while in the later period they were only 7.3 per cent.

<sup>123</sup> Stone, "Cotton Factorage System," in *American Historical Review*, XX, 562.

<sup>124</sup> Phillips, U. B., *Transportation in the Eastern Cotton Belt*, 6.

<sup>125</sup> Donnell, *History of Cotton*, 493.

<sup>126</sup> *Farmers' Register*, VI, 61; Buck, *Anglo-American Trade, 1800-1850*, p. 67.

<sup>127</sup> *Ibid.*, 80-93.



TABLE 24.—Percentage distribution monthly of receipts of cotton at New Orleans for various periods<sup>1</sup>

Month	1823-4	1823-4 to 1827-8	1827-8	1845-6	1845-6 to 1851-2	1852-3 to 1858-9
September.....	.2	.3	.5	6.0	3.8	5.1
October.....	1.4	1.8	2.8	11.2	10.0	11.0
November.....	5.7	6.1	9.3	11.4	11.7	14.1
December.....	10.7	11.3	12.9	8.6	12.8	16.6
January.....	16.3	11.6	12.4	11.1	14.5	13.3
February.....	15.6	14.4	15.4	13.8	13.9	13.0
March.....	15.5	18.4	16.7	15.7	14.0	11.6
April.....	18.9	15.2	13.8	13.4	10.2	8.0
May.....	11.7	14.6	12.2	6.3	5.4	3.9
June.....	3.5	4.9	2.7	1.4	2.1	1.8
July.....	.4	1.1	.9	.7	.9	.8
August.....	.1	.3	.4	.4	.7	.8

<sup>1</sup> The table is based on data in the following newspapers: *New Orleans Price Current*, Sept. 13, 1823 to Oct. 4, 1828; *New Orleans Commercial Bulletin*, Sept. 1, 1846; Aug. 31, 1847; July 3, Aug. 1, 31, 1848; Sept. 1, 1849; Aug. 31, 1850; Aug. 16, Sept. 1, 1851; Aug. 14, Sept. 1, 1852; Sept. 1, 1853; Sept. 1, 1854; Sept. 1, 1855; Aug. 30, Sept. 1, 1856; Aug. 31, Sept. 1, 1857; Aug. 31, Sept. 1, 1858; Aug. 31, Sept. 1, 1859. The figures on monthly receipts were used in preparing weighted averages of prices by years at New Orleans. (Appendix, Table 41.)

In spite of the concentration of cotton receipts in certain months, the marketing machinery, although still crude, was sufficiently effective to prevent an abnormal seasonal spread on an average of many years. The following table shows average monthly prices for two periods. Averages for the earlier years are not included because the lack of quotations for certain months in particular years affects materially the reliability of the average. Apparently there was a distinct tendency for average prices to be slightly lower in the months of heavy receipts, especially November to March inclusive, than in the months of light

TABLE 25.—Average monthly prices of upland cotton (seconds or middling) at New Orleans, 1838-1849 and 1850-1860<sup>a</sup>

Month	1838-1849	1850-1860	Month	1838-1849	1850-1860
	<i>cents per lb.</i>	<i>cents per lb.</i>		<i>cents per lb.</i>	<i>cents per lb.</i>
September.....	7.9	10.8	March.....	8.0	10.1
October.....	8.2	10.3	April.....	8.2	10.5
November.....	7.8	10.1	May.....	8.2	10.2
December.....	7.8	10.0	June.....	8.1	10.4
January.....	7.9	10.0	July.....	8.2	10.4
February.....	8.0	10.0	August.....	8.2	10.3

<sup>a</sup> See Appendix, Table 41.

receipts. Cost of holding exerted a slight influence, but the difference on the average was only a fraction of a cent.

#### MARKET DIFFERENTIALS AND COSTS

The local cost of marketing varied somewhat according to the locality, the distance from port, and the particular charges characteristic of each port. Various estimates of the cost for packing, freight, and commissions range from \$2.50 to \$4.00 a bale.<sup>128</sup> In 1849 the cost of marketing four bales at New Orleans from

<sup>128</sup> *Southern Cultivator*, IV, 11; *De Bow's Review*, VII, 435; X, 569; *Hunt's Merchants' Magazine*, XV, 379.

Union County, located along the Ouachita river in southern Arkansas, was reported as follows:<sup>129</sup>

Freight.....	\$4.00
Commissions (2½%).....	3.00
Bagging and ropes.....	7.00
Storage, drayage, and weighing.....	0.75
Insurance, fire and river.....	1.50
Total.....	\$16.25

This was an average of a little over \$4 per bale. The cost in earlier years was probably higher. In 1822-23 the cost for a Georgia plantation of factorage, transport, rent, drayage, and labor on 185 bales was estimated at \$6.03 per bale.<sup>130</sup>

Great progress was made in economizing the cost of handling and shipping cotton from the South to Liverpool. It was estimated that improvements in naval architecture and the development of compressing increased the weight of cotton carried from 900 pounds per ton register to 2,000 pounds. In 1822 transport and marketing charges between Mobile and Liverpool were about 3½ cents per pound, not allowing for exchange.<sup>131</sup> In the next thirty years this differential was greatly reduced. About 1853 Entz published detailed tables showing the normal differential between Liverpool prices and prices in different Southern ports under various conditions. He gave charges of shipments from New Orleans and Charleston, South Carolina, in percentages of the price of cotton as follows:<sup>132</sup>

Charges at port of export	New Orleans to Liverpool	Charleston to Liverpool
Commission.....	4%	4%
Marine insurance.....	1%	1%
Shipping, per bale.....	23 cents	44 cents
Charges at Liverpool.....		
Commission and guarantee.....	2½%	2½%
Brokerage, fire insurance, and discount.....	2½%	2½%
Small charges, per bale.....	3s. 2d.	2s. 11d.

Assuming the above freight rate, the price of cotton at 5 cents at the port, exchange at 105, and a net weight of 94.27 per hundred pounds after allowing for tare, he figured that cotton at Liverpool would be worth 3.17 pence per pound shipped from New Orleans and 3.18 pence shipped from Charleston. For New Orleans the Liverpool price ranged lower as the rate of exchange increased, reaching 2.9 pence with exchange at 115. Cotton at 10 cents per pound at New Orleans, he estimated to be worth 6.22 pence at Liverpool. Thus the differential from New Orleans was 35 per cent of the New Orleans price when cotton in New Orleans was worth 5 cents and exchange was 105. When cotton was worth 10 cents at New Orleans and exchange was 105 the percentage differential was 45. Freight

<sup>129</sup> Watkins, *King Cotton*, 243.

<sup>130</sup> *Niles' Register*, XXIII, 217; cf. Watkins, *King Cotton*, 143.

<sup>131</sup> "Cotton Growing—American and Indian," in *British Quarterly Review*, IX, 361; *Mobile Argus*, Dec. 5, 1822.

<sup>132</sup> *Cotton Tables: Exhibiting Cost of Cotton with all Charges at Liverpool or Havre from New Orleans or New York*, 6, 10; cf. *idem*, *Exchange and Cotton Trade*, 7, 13.

rates, of course, were exceedingly fluctuating. An unusually large crop was likely to impose a penalty on the planter, not only by reason of low prices but also because of an advance in freight rates. The huge crop of 1840, for instance, threw such a heavy burden on the available shipping that in 1841 freights to Liverpool in British ships advanced to  $1\frac{1}{8}$  to  $1\frac{3}{16}$  pence per pound and to New York  $1\frac{1}{2}$  to  $1\frac{5}{8}$  cents, although in an ordinary year they ranged from  $\frac{1}{4}$  to  $\frac{3}{4}$  of a cent per pound.<sup>133</sup>

It is interesting to compare these various charges with those of more recent years, although precision is difficult because of changed conditions. About 1924 ocean freight rates to northern Europe averaged about 50 cents per bale. Considering the change in purchasing power of money, this is probably considerably lower than the rates assumed by Entz for 1853. Total costs of handling cotton in 1924 from Waco, Texas, to Havre in "points," or one-hundredths of a cent, were estimated by an exporter as follows:<sup>134</sup>

Tare.....	150	Ocean freight.....	45
Commissions.....	23	Compression.....	15
Insurance.....	26	Exchange.....	158
Railway freight.....	90	Interest.....	12
Forfeit charges.....	2	Total.....	521

Some of these items, particularly railway freight and loss from exchange, were not included in the Entz figures. Omitting these, the total cost under the above estimate would stand at 2.73 cents per pound, not including exporter's overhead costs and profits. This differential in absolute amount is not much greater than that allowed by Entz with cotton at only 5 cents a pound, and considerably less than he allowed on the assumption of 10-cent cotton. Yet, cotton in 1924 averaged a little over 13 cents a pound. The comparative specific costs should also be considered in the light of the fact that the general level of prices was more than 50 per cent greater in 1924 than in 1853. Another indication, though a rough one, is the comparative annual average price in England and the United States in the pre-war and post-war periods. In the period 1850-1859 inclusive the differential averaged 1.91 cents; while in the ten years 1886-1895 it was 0.84 cents.<sup>135</sup>

In the latter part of the period there developed the same type of impatience at the spread between farmer and consumer and the same dissatisfaction with middlemen charges which have been so prevalent in recent decades.<sup>136</sup> An act of Congress passed in March, 1857, was an outgrowth of this sentiment. It provided for sending a special agent to Europe to trace the movement of cotton from producer to consumer and the costs thereof, with a view to seeing if any economies could be effected.<sup>137</sup>

<sup>133</sup> From a New Orleans trade circular of Mar. 14, 1841, quoted by Watkins, *King Cotton*, 195; *De Bow's Review*, IX, 531; XI, 489.

<sup>134</sup> Tutt & Meadows, *Marketing Cotton for Export* (U. S., Dept. Com., *Trade Information Bulletin* 288), pp. 9, 15.

<sup>135</sup> Based on the price series of Latham, Alexander & Co., published in United States, Dept. Treas., Bur. of Statistics, *Cotton in Commerce*, 20-21. The exchange is assumed at 1 penny equals 2.03 cents.

<sup>136</sup> See above, pp. 430-433.

<sup>137</sup> Claiborne, J., *Consumption of Cotton in Europe*, 1-4.

## CENTRAL MARKET ORGANIZATION AND METHODS

Before the Revolutionary War London was the principal British market for cotton, largely dominated by general importing merchants who dealt with the Levant, Brazil, and the West Indies. About 1780 brokers who sold at auction began to displace the merchants. In the late years of the eighteenth century Liverpool captured the trade.<sup>138</sup> In that early period the Liverpool merchant either imported on his own risk or acted as a commission merchant for American planters or mercantile firms. Corresponding to the importer there were cotton dealers who specialized in supplying manufacturers with cotton. Occasionally they were importers, but usually they bought from importers. Very early the dealer found it necessary to make use of the specialized knowledge of brokers who bought on commission, and the cotton importer also sold through brokers on commission. Occasionally the broker combined his normal function with that of an importer or merchant, and sometimes the manufacturer bought direct through a broker; but in the earlier years of the cotton trade these practices were not common. By 1799 the bulk of the sales and purchases of cotton in Liverpool were made by six specialized cotton brokers.<sup>139</sup> After 1815 the manufacturers eliminated the dealers and bought direct in Liverpool through brokers, either from importers or from speculators who had come into possession of the cotton.<sup>140</sup> In place of the old merchants and brokers handling many colonial products, there developed a class of importers and brokers who specialized in cotton. The practice of buying and selling at auction continued to be widely employed in the British market during the first two decades of the nineteenth century, but thereafter was largely displaced by private sales, either by inspection of particular lots of cotton or by sample, a practice that steadily increased in importance. Competition led to the employment of buying brokers in the larger port towns of the United States, with whom orders might be placed for particular classes and grades. With the rise of American cotton manufacturers in the North orders were also placed with the Southern brokers, but in large measure American manufacturers purchased through dealers or importing merchants in the Northern cities.<sup>141</sup>

The evolution of the cotton market was greatly facilitated by the gradual development of recognized market classes and grades. At the beginning of the nineteenth century grading was unknown. Such market quotations as were issued were in terms of geographic classes, such as West Indian, Brazilian, Georgia "bowed," New Orleans, Tennessee, etc. Gradually grading terms, such as middling, good, ordinary, etc., were borrowed from the sugar industry.<sup>142</sup> In 1803

<sup>138</sup> *Treatise on the Cotton Trade in Twelve Letters*, 9-12; cf. Chapman, S. J., *Lancashire Cotton Industry*, 113.

<sup>139</sup> Dumbell, "Cotton Market in 1799," in *Economic Journal, Supplement*, Jan., 1926, pp. 140-146; Buck, *Anglo-American Trade, 1800-1850*, pp. 37-56; Chapman, S. J., *Lancashire Cotton Industry*, 113-115; Ellison, *Cotton Trade of Great Britain*, 165. M. B. Hammond has followed closely Ellison's account. *Cotton Industry*, Chap. X.

<sup>140</sup> Ellison, *Cotton Trade of Great Britain*, 176; cf. Chapman, S. J., *Lancashire Cotton Industry*, 114.

<sup>141</sup> Buck, *Anglo-American Trade, 1800-1850*, pp. 57-65; Hammond, M. B., *Cotton Industry*, 288-290.

<sup>142</sup> Dumbell, "Cotton Market in 1799," in *Economic Journal, Supplement*, Jan., 1926, p. 147; Chapman, S. J., *Lancashire Cotton Industry*, 121 et seq.

to 1805 price quotations at Charleston, South Carolina, recognized class distinctions between sea-island, South Carolina upland, West Indian, and Mississippi. The Charleston market also distinguished stained cotton and saw-ginned from roller-ginned upland. Furthermore, the distinction between black-seed upland and green-seed upland was included; and the grade term "best" was introduced.<sup>143</sup> New Orleans price quotations about 1824 employed the grade terms, first, second, and third.<sup>144</sup> Gradually the Liverpool grade terms, such as ordinary, middling, fair, and good fair, began to influence American terminology. About 1830 and for some years thereafter New Orleans quotations employed both the Liverpool terms and the customary New Orleans terms, prime, seconds, inferior, etc.<sup>145</sup> By about 1840 the Liverpool terminology had largely come to prevail at New Orleans and Mobile, and "middling" was employed as the principal basis for price quotations. However, middling was not yet the basis for future trading, which in the modern sense of the term did not begin until after the Civil War. By 1857 there was also a "New York classification," which employed mostly the Liverpool terms.<sup>146</sup> The markets continued also to distinguish geographic classes. Thus, on January 6, 1857, New York quotations of middling for important geographic classes were: Uplands,  $13\frac{1}{4}$  cents; Florida,  $13\frac{1}{4}$ ; Mobile,  $13\frac{3}{8}$ ; New Orleans and Texas,  $13\frac{1}{2}$ .<sup>147</sup>

From an early period the cotton industry was highly speculative. In 1789 one of the more conservative British merchants was complaining that the new practice of selling at auction had made the trade exceedingly precarious. The number of dealers, brokers, and professional speculators had "increased in a most astonishing degree." Fortune had "favoured a few illiterate *porters*," and there developed in 1780 and 1781 the first speculative craze. A few years later there was another speculative fever, and an unsuccessful attempt to corner the market.<sup>148</sup> The speculative characteristics of the market were expressed by some wag in a comic poem, published in a Liverpool paper in 1825, which traced the sequence of the market from April 20, 1825 to February, 1826, as follows:<sup>149</sup>

"1 Hesitation	6 Tribulation
2 Trepidation	7 Vacillation
3 Consternation	8 Desolation
4 Prostration	9 Desperation
5 Resuscitation, or	10 Ruination
	11 D———"

Speculation thrives on uncertainty, and uncertainty was greatly intensified by slow and inadequate methods of communication. The markets, both in England

<sup>143</sup> *Charleston Courier*, 1803-1805, *passim*.

<sup>144</sup> *The Courier* (New Orleans), Feb. 16, Mar. 15, 1824.

<sup>145</sup> *Louisiana Herald* (Alexandria), June 24, 1820; *Le Courier de la Louisiane* (New Orleans), Jan. 10, Feb. 26, 1831.

<sup>146</sup> For instances, see *Niles' Register*, LIX, 64; LXXIII, 240; *Louisiana Courier* (New Orleans), Jan. 15, Aug. 29, 1857; *Mobile Register and Journal*, Mar. 8, 1844; Chapman, S. J., *Lancashire Cotton Industry*, 122.

<sup>147</sup> *Louisiana Courier* (New Orleans), Jan. 15, 1857.

<sup>148</sup> *Treatise on the Cotton Trade in Twelve Letters*, 1-8.

<sup>149</sup> Reprinted in *Niles' Register*, XXX, 266.

and in America, were continually affected by rumors. Before the Civil War intra-seasonal fluctuations of 6 to 8 cents were not uncommon. In one year the spread was 9 cents, in another  $12\frac{1}{2}$ , and in still another 18.<sup>150</sup> Regular market operators had special facilities for obtaining information not enjoyed by cotton planters. There was some progress, however, in the diffusion of more dependable information. Newspapers became more widely circulated and gradually increased the frequency and volume of their market information. As early as the close of the eighteenth century there was a tacit understanding among certain English brokers for exchange of information. In 1805 a Liverpool firm began to issue a weekly account of sales and imports. By 1808 there were three such circulars. The first associated circular was issued in 1832, and informal coöperation among brokers led to the formation in 1841 of the Liverpool Cotton Brokers' Association. The Association did not assume the function of issuing market reports until 1864.<sup>151</sup>

There was much discontent among Southern producers before the Civil War on account of market uncertainties and the special advantages enjoyed by middlemen in prior knowledge of conditions. It was also believed that prominent middlemen issued misleading information to influence the market. There were rumors from time to time of combinations of dealers to corner or otherwise influence and control the market. The Bank of England was another object of distrust, for it was believed that through its manipulation of credit it exerted a powerful influence on the price of cotton.<sup>152</sup> These conditions led to suggestions for the development of a crop reporting service for the benefit of planters and farmers. In 1836 it was proposed that the various agricultural societies of South Carolina report quarterly the acreage planted and crop prospects, to be summarized and published in the *Southern Agriculturist*.<sup>153</sup> In 1857 a correspondent of a South Carolina paper urged that Southern Congressmen form an agricultural society, one of the duties of which would be to assemble information concerning crop prospects and other market conditions and make it available to their constituents. It was also proposed that planters in the various localities should send crop information from time to time to a central State office from which it would be further concentrated by a marketing organization representing the producing States.<sup>154</sup> The movement largely evaporated in discussion,<sup>155</sup> although a local crop reporting organization was actually formed in Marengo County, Alabama,<sup>156</sup> and possibly in other counties.

<sup>150</sup> Watkins, *King Cotton*, 41.

<sup>151</sup> Chapman, S. J., *Lancashire Cotton Industry*, 122 et seq.

<sup>152</sup> For instance, see *Niles' Register*, XXVIII, 149; *New Orleans Commercial Bulletin*, Aug. 5, 1839. See also below, pp. 924-927.

<sup>153</sup> IX, 19-21.

<sup>154</sup> *Farmer and Planter*, VIII, 227. For another proposal, differing somewhat in detail, see Commander Maury's address, Oct. 11, 1859, in Tennessee, State Agricultural Bureau, *Third Biennial Report*, 1858-1859, p. 19.

<sup>155</sup> Concerning the gradual cumulation of economic discontent in the latter part of the period, see Chap. XXXIX.

<sup>156</sup> Watkins, *King Cotton*, 148.

## CHAPTER XXXI

### THE MINOR STAPLES IN THE POST COLONIAL PERIOD—RICE, SEA-ISLAND COTTON, AND SUGAR

**Rice.** Geography of the Industry, 721. Volume of Production, 723. Markets and Prices, 724. Methods of Irrigation, Planting, and Cultivation, 726. Harvesting and Milling, 729. Yield and Product per Hand, 730.

**Sea-Island Cotton.** Distinctive Character of Sea-Island Cotton Production, 731. Expansion of the Industry, 733. Methods of Planting and Cultivating, 734. Harvesting and Preparation for Market, 735. Acres per Hand, Yields, and Profits, 736. Prices, 737.

**The Sugar Industry.** Beginnings and Subsequent Growth of the Industry, 739. Technical Progress, 740. Prices and Tariff Protection, 744. Geographic Extent of the Industry, 748. Cultivation and Marketing, 749.

#### RICE

##### GEOGRAPHY OF THE INDUSTRY

It will be recalled that at the close of the colonial period and in the years immediately following, the rice industry was undergoing a geographic shift from inland swamps to river tide swamps, peculiarly adapted to rice cultivation because the rise and fall of the tide permitted easy control of the level in alternately flooding and draining the field. By properly constructed irrigation ditches and embankments it was possible for the planter to give his crop several floodings for the purpose of killing grass, weeds, and insects, and supplying needed moisture, alternately removing the water for the purpose of cultivation.<sup>1</sup> This process was far more economical than the old method, saving much of the labor of cultivation. The growing season was shortened, and the labor force enabled to begin the harvest earlier. The product per acre was also usually larger on tide-swamp plantations. Consequently the industry was more and more absorbed by tide-swamp planters.<sup>2</sup> About the close of the century Samuel Dubose, speaking of the inland-swamp plantations, declared, "That great body of land, which little more than a century ago furnished for exportation over 50,000 barrels of rice, now lies utterly waste."<sup>3</sup> It is probable that here and there inland swamps continued to be used. In 1832 there were a few rice plantations on Wappetaw Swamp, in Christ Church Parish, which appeared to be profitable. Irrigation water was obtained from reservoirs.<sup>4</sup>

The tide-swamp area well suited to the purpose was severely limited. The best conditions were found at special points along certain rivers from lower Cape Fear River, in North Carolina, to the neighborhood of Jacksonville, Florida. An important consideration was the degree of variation in the tides. On the coast of South Carolina and part of Georgia the tide was said to rise and fall

<sup>1</sup> Drayton, *View of South Carolina*, 116; Ramsay, *History of South Carolina*, II, 206 & n.

<sup>2</sup> Drayton, *View of South Carolina*, 116-119; article on "South Carolina," in Morse, *American Gazetteer*; Michaux, *Travels*, 288.

<sup>3</sup> *Address to the Black Oak Agricultural Society* (Thomas, *Huguenots in South Carolina*), 6.

<sup>4</sup> *Southern Agriculturist*, V, 357.

six or seven feet, and this was the degree of variation in level "which the planters themselves would have selected had the matter been left absolutely to their own decision."<sup>5</sup> Parts of the coastal region of Georgia were said to be less favored. There was not "the precision which is to be found on the Carolina plantations . . . for whilst with the Carolina planter, each operation is governed by the particular state of the crop, and water is put on or run off as may be required . . . the Georgia planter is obliged to wait certain periodical flowings of the tides . . . although, he can regulate his work to meet them in most cases."<sup>6</sup> The culture was not carried on north of Cape Hatteras, where the rise and fall was only three feet; nor was there an extensive development along the Gulf coast, for although in that region there were swamp lands well adapted in other respects to the culture, the rise and fall of the tide was only about two feet.<sup>7</sup>

Along the coast of the South Atlantic States rice cultivation was also limited to certain locations bearing a definite relation to the presence of salt in the water. It is said that on none of the rivers was the distance between the lower and upper limits greater than twelve to sixteen miles, and on some much less. On lands along the extreme lower limits salt water was likely to encroach in seasons of drouth. In very wet seasons freshets affected the planters on the upper margin, and the rice was submerged immoderately and unseasonably or the embankments swept away. Midway between these extremes were the most desirable areas, but there were other variations in adaptability of soil. Lands having all these special advantages in highest degree were valuable.<sup>8</sup>

It was estimated in 1790 that the rice exports of South Carolina were the product of a little over 40,000 acres, and in 1842 of 70,000 acres, the greater part belonging to large plantations.<sup>9</sup> According to Olmsted, the rice plantations which produced as much as 20,000 pounds a year numbered 446 in South Carolina, 88 in Georgia, and 25 in North Carolina.<sup>10</sup>

In Louisiana there was a less well adapted and less highly commercial rice area, centering chiefly in Plaquemines Parish, where there were a number of small rice planters, of Spanish extraction, who owned a few slaves. The Louisiana planters made little progress and failed to obtain adequate machinery; consequently the product was of lower quality than that of South Carolina and Georgia. As late as 1848 threshing was still effected by horse treadmills. The rice was husked in hand mills and pounded in hand mortars. The fields were irrigated from the Mississippi river in time of high water, the water draining off into the bayous in the rear; and the elaborate system of flowings employed in the Carolinas as a means of killing weeds and irrigating the crop was not possible. In drouthy

<sup>5</sup> *Farmer and Planter*, I, 149.

<sup>6</sup> *Southern Agriculturist*, VI, 303.

<sup>7</sup> *Farmer and Planter*, I, 149.

<sup>8</sup> *Loc. cit.*; Russell, R., *North America, Its Agriculture and Climate*, 171-173. See above, p. 642.

<sup>9</sup> *Niles' Register*, XVII, 225; report of Committee on Agriculture, Dec. 14, 1842, in South Carolina, *Reports and Resolutions of the General Assembly*, 1842, p. 89.

<sup>10</sup> *Seaboard Slave States*, II, 94. The estimate was probably derived from United States, *Statistical View: A Compendium of the Seventh Census*, 178, Table 194, in which the number is given as 551 instead of 559. Another estimate for Georgia is 104 plantations. *Hunt's Merchants' Magazine*, XX, 381.



seasons the crop was likely to fail because of low water. Fields were prepared with the plow, and grain sown broadcast instead of in trenches.<sup>11</sup>

Some rice was grown in various parts of the Cotton Belt by dry culture. Thomas Jefferson procured from Africa a cask of upland rice seed, which he distributed. He declared that the culture came to naught in South Carolina, but "being carried into the upper hilly parts of Georgia, it succeeded there perfectly, has spread over the country, and is now commonly cultivated."<sup>12</sup> One observer believed upland rice a more economical food crop than corn because of the small yields of the latter, but on account of the heavy labor cost of cultivation and the difficulties of preparing it for consumption, it was grown essentially for home use,<sup>13</sup> and the commercial product confined to cultivation by irrigation.

The geographic distribution of the industry by States at the various census periods was as follows:

TABLE 26.—*Statistics of rice production in the principal producing States, 1839, 1849, and 1859*<sup>1</sup>

States	1839	1849	1859
	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>
United States.....	80,841,422	215,313,497	187,167,032
South Carolina.....	60,590,861	159,930,613	119,100,528
Georgia.....	12,384,732	38,950,691	52,507,652
North Carolina.....	2,820,388	5,465,868	7,593,976
Louisiana.....	3,604,534	4,425,349	6,331,257
Mississippi.....	777,195	2,719,856	809,082
Alabama.....	149,019	2,312,252	493,465
Florida.....	481,420	1,075,090	223,704

<sup>1</sup> United States, *Statistical View: A Compendium of the Seventh Census*, 174; *United States Census*, 1850, p. lxxxii; *ibid.*, 1860, *Agriculture*, p. xciv.

#### VOLUME OF PRODUCTION

Judging from annual statistics of exports, there was but little increase in the magnitude of the rice industry between the last years of the eighteenth century and the outbreak of the Civil War. (See Table 42, Appendix.) From 1796 until 1860 there was no five-year period when rice exports exceeded the exports from 1791 to 1795 inclusive, except for the decade from 1826 to 1835 inclusive, when exports were about 8 per cent greater than in the earlier period. It is probable that the failure of foreign exports to increase after 1795 was due in part to the competition of cotton and in part to increase in domestic consumption. The latter explanation is indicated by estimates of annual production for the period beginning with 1819 and also by census statistics of production.<sup>14</sup> While production in 1849 and in 1859 was much larger than in 1839, possibly due in part to less complete enumeration in the latter year, there was a considerable decrease in South Carolina in 1859 as compared with 1849, and in the several

<sup>11</sup> *Charleston Courier*, July 20, 1804; *American Agriculturist*, II, 73; *De Bow's Review*, VI, 53-56.

<sup>12</sup> Letter to Dr. Waterhouse, Dec. 1, 1808, in *Writings* (Washington), V, 394.

<sup>13</sup> Russell, R., *Culture of Carolina Rice*, 10.

<sup>14</sup> Holmes, G. K., *Rice Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, Circular 34), p. 9.

Gulf States except Louisiana. The failure of the industry to expand in South Carolina during the early fifties is recorded in contemporary observations. There are also indications that although its cultivation was profitable in the sixth decade on the best favored lands, the ill-favored lands were less capable of holding their own.<sup>15</sup>

The considerable falling off in annual exports and the decrease in production shown by the census during the last decade were probably due largely to high cotton prices and increased competition of upland cotton for the available supply of labor. In 1861 the statement was made that for years slaves had been drawn away to the western cotton fields. Recently thousands had been drawn from the rice fields each year.<sup>16</sup> It is not improbable that this tendency reflected also unwillingness to employ high priced slaves in the unhealthy swamps. In 1852 it was declared, "There are many thousands of acres of choice rice lands in Georgia still unsubdued; but the improvements of swamp lands and the cultivation of rice are not esteemed healthful pursuits."<sup>17</sup>

#### MARKETS AND PRICES

As a large part of the crop was for export, it is probable that the industry was not greatly benefited by the tariff. An ad valorem duty of 15 per cent was imposed in 1828, but in 1832 rice was placed on the free list. In 1846 the duty was restored with a rate of 20 per cent, but it was lowered to 15 per cent in 1857.<sup>18</sup>

In the period October 1, 1815 to March 31, 1816 the destinations of exports from Charleston were as follows:<sup>19</sup>

Destination	Tierces	Destination	Tierces
British ports. ....	11,964	Other points in the north of Europe. ....	926
French ports. ....	8,533	Spain, Portugal, and the near-by island groups. ....	7,000 (about)
The Low Countries and Hamburg. ....	14,989	West Indies. ....	4,059
Copenhagen. ....	1,487		

In 1840 it was estimated that of the total crop 75,000 barrels were exported to Europe and 23,000 barrels to the West Indies. About 30,000 barrels were shipped to various parts of the United States, and the remainder consumed in the producing region.<sup>20</sup>

Unlike tobacco rice does not appear to have been the object of heavy fiscal burdens and restrictions in foreign markets. In 1797 British regulations were designed to encourage the reëxport trade. At the principal rice ports the warehousing of rice was permitted at the importer's expense for eighteen months

<sup>15</sup> United States Agricultural Society, *Journal*, I, No. 1, p. 135; Russell, R., *Culture of Carolina Rice*, 9.

<sup>16</sup> Letter in *Charleston Mercury*, Feb. 13, 1861, reprinted in Phillips, U. B., *Plantation and Frontier*, II, 176.

<sup>17</sup> United States Agricultural Society, *Journal*, I, No. 1, p. 135.

<sup>18</sup> United States, *Rates of Duty on Imports into the United States* (Senate Report, 51 Cong., 2 sess., No. 2130), pp. 168-169, 212.

<sup>19</sup> *Niles' Register*, X, 194.

<sup>20</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 66; cf. *De Bow's Review*, XXV. 351.

without payment of the duty of 8 pence per hundredweight.<sup>21</sup> British regulations also encouraged the shipment of paddy so as to foster the milling trade in Great Britain. Thus, in 1841 the British duty on milled rice was 15 shillings per bushel, but on paddy only 2 shillings 6 pence. In the same year, however, the duty was lowered to only 1 penny per quarter of paddy.<sup>22</sup> At that time France had a duty of 2½ francs per hundred kilograms of rice paddy imported in French vessels direct from place of production. Austria charged 54 kreutzers per quintal, and Russia, 40 silver copecks per quintal.<sup>23</sup> These low duties probably did not seriously restrict the demand. The tariff in the Zollverein in 1839 was somewhat higher than any of the above, amounting to 3 thalers per centner,<sup>24</sup> a little less than 75 cents per hundred pounds.

As in the earlier period, Carolina rice continued to enjoy a differential advantage in the markets of Europe due to superior quality, as compared with oriental rice. Tench Coxe asserted South Carolina rice was also superior to Mediterranean rice and normally commanded a premium of 25 per cent over the latter, but Thomas Jefferson declared this was due to the cleaning the Carolina rice received after reaching Europe, before which process it was dirtier and contained more broken rice than an equivalent quantity of Mediterranean rice. When milling was carried on in the region of production, rice deteriorated considerably during the long period that elapsed before consumption, another reason for exporting paddy. Superiority of Carolina rice was due partly to higher quality of seed.<sup>25</sup>

Taking the average of available annual prices for the period between the Revolution and the Civil War as a base, prices were somewhat below the average from 1789 to 1793. (See Table 42, Appendix.) Prices improved in 1794, probably as a result of serious flood losses in 1793, and in 1795 were much above the average. In 1795 and 1796 rice shared in the high prices for grain resulting from war demand in Europe. In the latter part of 1796, however, prices dropped sharply. In 1799 the price prospects were good because of the tendency of cotton planters to plant cotton and neglect corn, thus increasing demand for rice. Foreign demand was also strong, and domestic demand strengthened by crop failure in the North. These developments were indeed welcome inasmuch as for several years the war in Europe had been a cause of depression.<sup>26</sup> From 1802 to 1807 prices were well above average, but fell below from 1808 to 1811 inclusive. In general, the War of 1812 had an influence on rice opposite to that on cotton, since it stimulated demand for foodstuffs.<sup>27</sup> In 1812 prices were high. They

<sup>21</sup> Macpherson, *Annals of Commerce*, IV, 422.

<sup>22</sup> United States, *Correspondence in Relation to Duties Levied on Tobacco in the German States* (Senate Doc., 27 Cong., 1 sess., No. 55), p. 9; *Niles' Register*, LXI, 208.

<sup>23</sup> United States, *Correspondence in Relation to Duties Levied on Tobacco in the German States* (Senate Doc., 27 Cong., 1 sess., No. 55), p. 9.

<sup>24</sup> *Idem.*, *Report of the Select Committee on the Tobacco Trade* (House Report, 25 Cong., 3 sess., II, No. 310), p. 4.

<sup>25</sup> *North Carolina State Records*, XVIII, 629; Jefferson, *Writings* (Ford), IV, 236; *Farmer and Planter*, I, 149.

<sup>26</sup> *Baltimore Daily Repository*, June 12, 1793; *State Gazette of North Carolina* (Edenton), July 30, 1795; Mar. 3, 1796; *Columbian Museum and Savannah Advertiser*, Nov. 22, 1796; *Federal Gazette and Baltimore Daily Advertiser*, Aug. 12, 1799.

<sup>27</sup> See Wightman, *William Capers*, 46.

fell below the average in 1813, but 1814 to 1819 was a period of high prices. It was followed by a long period, from 1820 to 1835 inclusive, of prices below the average, probably reflecting during the latter part of the period the larger production for 1826 to 1835 inclusive. There were relatively good prices from 1836 to 1838 inclusive, but in 1839 the industry appeared to be suffering from oriental competition, East Indian rice being sold in Charleston at less than 3 cents a pound.<sup>28</sup> The net return of six rice planters for the period 1830 to 1840 averaged \$140 per annum for each hand, taking into account only the "efficient force." The period of low prices continued until 1851, except for the years 1845, 1846, 1847, and 1849, thus partly synchronizing with the long period of depression in the tobacco and cotton industries. The good prices of 1845 were probably due to the almost complete failure of grain crops in 1844. From 1852 to 1855 inclusive was a period of better prices,<sup>29</sup> followed by another low level, which continued until 1860.

#### METHODS OF IRRIGATION, PLANTING, AND CULTIVATION<sup>30</sup>

The development in tidal cultivation of cultural practices necessitating a rather exact regulation of depth of water in relation to height of the plants placed a premium on fields with slope sufficiently even for fairly uniform level of water, and yet capable of drainage. Even on the best lands it was found necessary, in order to secure this nicety of control, to subdivide the fields by embankments into areas from 12 to 22 acres in size, further subdivided by small ditches about  $2\frac{1}{2}$  feet deep and 18 inches wide into plots of  $\frac{1}{4}$  acre and sometimes even  $\frac{1}{8}$  acre. Large canals, 15 feet or more in width and several feet deep, connected the irrigation ditches with the river, the water supply being controlled by sluice gates. By an ingenious arrangement it was possible to flood or drain the fields at will by taking advantage of the variations in level of the tide.<sup>31</sup>

Rice land capable of easy irrigation was generally too dear to be used for corn and potatoes, and rice planters found it advantageous to buy cheaper sandy uplands for food crops. Rice was customarily planted in the same field year after year, with occasional rest. Oats were sometimes planted as a winter crop on land intended for potatoes. The dry cultivation of oats and potatoes on the rice fields was sometimes practiced, not only for the food, but also to get rid of weeds.<sup>32</sup> Many planters considered it desirable to plant rice and sea-island cotton as alternating crops; thus gaining the general advantages of rotation and

<sup>28</sup> *Southern Agriculturist*, XI, 243; *Farmers' Register*, VI, 436.

<sup>29</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 65; *Carolina Planter* (1844-5), I, 115.

<sup>30</sup> In the following account of methods of rice cultivation it appears unnecessary to make separate citations for every detail. The description is based on the following general accounts: Allston, "Rice," in *De Bow's Review*, I, 331-337; *idem*, *Essay on Sea Coast Crops*, 29-40; Winyah and All-Saints Agricultural Society (Allston, chairman of committee), *Reports submitted Apr. 20, 1848*, pp. 3-6; *American Farmer*, 1 series, XV (1833-4), p. 114; *American Agriculturist*, I, 85; *De Bow's Review*, IX, 421-426; XI, 306; XII, 297-299; *Southern Agriculturist*, I, 117; II, 193-197, 249-253, 370; Russell, R., *North America, Its Agriculture and Climate*, 171-175, 181; *idem*, *Culture of Carolina Rice*, 1-13. Citations to particular points or partial accounts are included in footnotes to the text.

<sup>31</sup> *Southern Agriculturist*, II, 23-27; *American Farmer*, 1 series, XV (1833-4), p. 179; *De Bow's Review*, XII, 297; *Farmer and Planter*, I, 161; Ramsay, *History of South Carolina*, II, 206; Allston, *Essay on Sea Coast Crops*, 28.

<sup>32</sup> *De Bow's Review*, XV, 179; *Southern Agriculturist*, III, 121; Allston, *Essay on Sea Coast Crops*, 23; Russell, R., *Culture of Carolina Rice*, 7.

the alternation of a dry crop with a water crop, eliminating the grasses and weeds peculiar to each type of culture. Moreover, there were periods when labor was comparatively free from the cultivation or harvesting of the one and might be employed in the other crop.<sup>33</sup>

Land was first prepared by burning the trash and stubble of the previous year. Some planters preferred to keep water on the fields until a short time before breaking, in order to kill weeds and insects. The small subdivisions of the fields and numerous ditches made plowing difficult, and many rice fields were not dry enough in the spring for plowing. Scarcity of land for raising feed made it costly to keep work stock. Until late in the ante bellum period it continued to be customary to break land by heavy turning hoes, the task being a quarter of an acre per day. Clods were afterwards broken by the harrow or "mashed" by the hoe. In the late thirties rising prices of Negroes and the demand for them in the Southwest began to induce a substitution of animal power in plowing, trenching, harrowing, and hauling rice sheaves. By 1850, it was stated, animals had been generally introduced for these processes.<sup>34</sup> In 1837 the advantages were described as follows:<sup>35</sup>

"The first cost of a working negro, bought singly, is about twelve hundred dollars; the annual expense for food, clothes, taxes, medical attendance and medicine, houses, overseer's wages, &c., vary from twenty to fifty dollars, according to circumstances; much of this outlay being expended on those who do not work. The price of the best pair of oxen is about fifty dollars; ploughs, harrows, and gear, ten or twenty more. The annual expense on this outlay of capital is nothing, the offal of the provision crop, or rice-flour, and straw, with the pasture of the woods, furnishing nearly all their food. By substituting this power for that of the negro, where practicable, there is a saving of more than nineteen twentieths of capital invested, and more than the same proportion of annual expenditure. Let us now take a comparative view of the work performed by these different powers. A yoke of oxen driven by one man, will plough one acre per day, the work of four hands, thus saving the labor of three hands. They will harrow three acres per day, thus saving the labor of five hands; if properly broke, they will trench four acres per day, thus saving the labor of four hands, allowing that two attendants will be required in this operation, one to lead the oxen in a straight line, the other to direct the trenching-plough. The advantages derived from their labor, in carting and wagoning, are not susceptible of comparative calculation."

Most of the seaboard planters sowed rice in trenches. It was alleged that in this way rice was sown more evenly, and that cultivation was therefore possible. Trenches were 13 to 15 inches apart, 2 inches deep, and 3 to 4 inches wide. A great deal of skill was required to draw them straight. Usually they were marked off about 4 feet apart by means of guide stakes, and the furrows drawn by hands skilled in the difficult task of drawing them straight. Seed was sown about the thirtieth of March at the rate of 2 to 3 bushels per acre.<sup>36</sup> Considerable skill was required to secure uniformity in the row and to scatter the seed over the entire width of the trench. The seed was then covered by hoes, rakes, or covering

<sup>33</sup> *Southern Agriculturist*, I, 60, 545; *American Farmer*, 1 series, XV (1833-4), p. 179.

<sup>34</sup> *Carolina Planter* (1844-5), I, 115; *Southern Agriculturist*, IX, 169; *Farmer and Planter*, I, 149.

<sup>35</sup> *Southern Agriculturist*, X, 172.

<sup>36</sup> *Ibid.*, new series, IV, 11.

boards. In 1812 an improved grain drill, capable of sowing 8 to 12 acres a day, was introduced by Dr. Robert Nesbit, of Charleston, but its use did not become general, for it was considered too complicated for Negroes. Some farmers planted by the open-trench method, developed in 1826 by John H. Allston,—a method that became increasingly popular. Instead of covering the seed with dirt, it was clayed before sowing, scattered in the trench, and then covered with water, which was kept on until the plants were 1 to 2 inches high.<sup>37</sup> The advantages of this method were said to be as follows: first, the saving of a day's labor in covering for each three quarters of an acre; second, the prevention of depredations of birds and insects; third, the seeds of weeds and volunteer rice were drawn outside the trench, instead of back to the middle of the row; fourth, in case a river freshet prevented drawing off the sprout flow, the seed was not so likely to rot. The disadvantages were the growth of water grasses during the long period of twenty-five or thirty days, the unequal covering of the seed by the action of the waves in high winds, the filling up of drains, and the washing of banks.

When the closed-trench method was employed, the first, or "sprout flow," was applied as soon as the seed was covered, and the water retained on the fields for four or five days. After the water was drawn off, it was necessary to guard the fields carefully from birds until the rice plants were well above the surface. The "point flow" was then applied, the water being kept on from three to seven days for the purpose of killing grass and weeds.

As soon as the plants were strong enough, the entire field was given a shallow hoeing, which was repeated in about two weeks. At this hoeing grass and weeds were hand picked. A day or two afterward the land was covered by the "long flow." The careful regulation required is described as follows:<sup>38</sup>

"The water is raised at first above the tops of the plants, so as to float off trash, bugs, &c., which floating stuff will be driven by the wind into corners of the fields, and should be gathered up and removed. Then the water is lowered, so that, if the surface of the field be as level as usual, (and as it ought to be,) the tips of the plants are then seen above on the highest parts of the field. Then the water is lowered very gradually, and during several days, until the tips of about two-thirds of the plants of the entire field, or division of land, are above the surface of the water. The flow is then kept stationary at this precise height (which is fixed by making and observing marks on the trunk posts) for a duration of from 10 days on the lightest land to 20 on the stiffest, when the water is again entirely drawn off, which closes the 'long flow.' This is the most important flow, and its execution requires judgment and careful attention. At this critical period, a field of rice may be much injured either by too deep flowing, or by suddenly lowering and taking off the water. If the flow be continued too long, or the water be drawn off when the roots of the rice are in an exhausted condition, the plants will 'fox,' or take a reddish brown tint."

The long flow was followed by a third hoeing, when the grass was again picked by hand. This hoeing was usually made deep, so as to break up the soil thoroughly and allow the roots to spread. The fourth hoeing, very shallow, occurred when the plants were about to joint. This was followed by the lay-by flow, in

<sup>37</sup> *Farmer and Planter*, I, 161.

<sup>38</sup> *De Bow's Review*, IX, 424; cf. *Farmer and Planter*, II, 113.

which water was kept at about the same height as in the long flow. The lay-by flow continued until the rice was fully headed. Twice during this flow hands waded through the fields, pulling up weeds and volunteer rice and carrying them away in baskets.

Volunteer rice was one of the worst pests with which the rice planter was forced to deal. A small number of the conspicuous red grains in a portion of the white rice seriously lowered its grade.<sup>39</sup> Therefore planters carefully selected their seed. The principal variety of rice was the gold seed, introduced in the later years of the colonial period, and gradually improved by careful selection. A Pedee planter was credited with the development of a superior variety known as seed rice, the result of over twenty years of selection beginning in 1828. A friend of his, Colonel Joshua Ward, of Waccamaw, who had adopted the improved variety, had his attention called one evening to some grains of unusual length, from which he developed the variety known as long grain, later eagerly sought by consumers at a premium. The Guinea rice, used by some planters, was a broader and shorter grain than the gold seed. Two other varieties, the common white rice, formerly cultivated before the introduction of gold seed, and the white bearded rice were sometimes raised for use of slaves.<sup>40</sup>

Protection of the crop against the innumerable birds that swarmed in the rice fields was a serious problem. The usual practice was to employ children and old Negroes to frighten them away. Some planters erected platforms in the fields. A slave was stationed on each platform, and armed with guns, bells, gourds, and other noise-making devices. Other planters encouraged the presence of buzzards and hawks to frighten away the grain-eating birds.<sup>41</sup>

#### HARVESTING AND MILLING

Harvest began the last of August or early in September. The rice was cut by the sickle. Some planters introduced cradles, but they do not appear to have been generally adopted.<sup>42</sup> Experiments were also made with patent reapers, but they did not work well on the miry ground. The rice was bound in bundles and carried to the barns on "flats" floated on the main canals. Gradually rude oxcarts were employed to carry the grain to the "flats." In the barnyard the rice was stacked to await the threshing season.

The flail was used in threshing, with a few exceptions, until near the middle of the nineteenth century.<sup>43</sup> So great was the difficulty of threshing that a large crop was sometimes regarded almost as a calamity.<sup>44</sup> In 1811 Dr. Robert Nesbit imported a Scotch threshing machine, which he operated by wind power. During the next twenty-five years a number of inventions were made to improve the Scotch machines and adapt them to use in rice threshing. No great success was achieved until 1829, when an invention was perfected by Calvin

<sup>39</sup> *Southern Agriculturist*, VI, 9; Russell, R., *Culture of Carolina Rice*, 8.

<sup>40</sup> Allston, *Essay on Sea Coast Crops*, 29 n.; *idem*, "Rice," in *De Bow's Review*, I, 326.

<sup>41</sup> *North Carolina Planter*, II, 132; *Southern Agriculturist*, VI, 424-427; X, 187.

<sup>42</sup> *Southern Cultivator*, VI, 120.

<sup>43</sup> *Southern Agriculturist*, II, 405; Hodgson, *Letters from North America*, I, 44; *De Bow's Review*, XVIII, 352; Drayton, *View of South Carolina*, 121; Hall, B., *Travels in North America*, III, 163.

<sup>44</sup> *De Bow's Review*, XI, 306.

Emmons, of New York. This machine was equipped with beaters provided with teeth composed of serrated iron wire, so arranged as to comb the grain from the ears of rice. When driven by horsepower, the daily output was 200 to 300 bushels per day; and by steam, 450 to 700 bushels.<sup>45</sup> By 1851 stationary steam threshers had been so greatly improved that they were capable of threshing above 1,000 bushels per day. The machines were expensive, however, costing from \$3,000 to \$7,000, and as late as 1850 were employed only by the more progressive large planters.<sup>46</sup>

About the beginning of the nineteenth century it was still customary to grind rice by wooden mills to remove the outer husk, blowing the chaff away by hand wind-fans. Rice was then beaten in pounding mills by heavy pestles. A pendulum screen for sifting the grain was introduced in 1798 by Lewis Du Pre. The application of water power to rice mills was made in 1787 by a Mr. Lucas, and further improved by his son, Jonathan Lucas. In 1791-92 Jonathan Lucas built the first tide mill, and within a few years combined all the processes of milling rice—the grinding, winnowing, pounding, screening, and polishing. In 1801 Lucas erected the first toll mill in South Carolina. Later other toll mills were built, where the smaller planters might have their rice milled for a payment of  $7\frac{1}{2}$  per cent of the grain.<sup>47</sup> In 1832 Strong and Moody's Patent Rice Mill was invented. It substituted the friction of mill stones for the primitive method of pounding, and less grain was broken in the process. A similar, but less effective, mill had been invented earlier by a Mr. Ravenel.<sup>48</sup> Gradually, as we have noted, there was an increasing tendency to export paddy and mill it in Europe. According to De Bow, the shipment of rice paddy to Europe on an extensive scale began in 1823. By 1850 most of the rice exported was paddy. In 1855, however, there were still a number of large rice mills in the neighborhood of Charleston and Savannah,<sup>49</sup> probably milling rice mainly for domestic consumption.

#### YIELD AND PRODUCT PER HAND

About 1791 from  $2\frac{1}{2}$  to 3 barrels per acre was considered a good crop. At 600 pounds to the barrel this was 1,500 to 1,800 pounds. This probably meant paddy, although the amount is sufficiently small to have represented a rather good yield of milled rice. The yield per hand for a good crop was 8 to 10 barrels. Some even achieved 12 to 14 barrels, but 5 or 6 per hand was reckoned an average.<sup>50</sup> In 1844 it was asserted that the average product varied from 25 to 60 bushels per acre, and another observer reported about 1857 that the average product in the Savannah River region was 45 to 55 bushels of paddy, though on occasion it might be as high as 70 to 80. (In modern commercial practice it is reckoned that 162 pounds of paddy is equivalent to 100 pounds of milled rice.)

<sup>45</sup> Allston, "Rice," in *De Bow's Review*, I, 340-342; *Farmers' Register*, VII, 651.

<sup>46</sup> *De Bow's Review*, XI, 306; XII, 297; *Southern Cultivator*, VIII, 85.

<sup>47</sup> Drayton, *View of South Carolina*, 121; Allston, "Rice," in *De Bow's Review*, I, 342-344; *Southern Agriculturist*, I, 507; *Southern Cultivator*, VI, 121; *Farmer and Planter*, I, 148.

<sup>48</sup> *American Agriculturist*, I, 86; *Southern Agriculturist*, II, 505.

<sup>49</sup> *Industrial Resources*, II, 410 n.; *Farmer and Planter*, I, 149; Russell, R., *Culture of Carolina Rice*, 16.

<sup>50</sup> Washington, *Diaries* (Fitzpatrick), IV, 172.



It was said that the yield per acre in Georgia tended to be somewhat higher than in the Carolinas.<sup>51</sup>

The quantity of land per hand depended somewhat on the condition of the land—especially on its adaptability to water culture. A few planters managed to cultivate as much as 7 acres to the full hand by employing plows and horses to aid the laborers in preparing the land for planting. From 5 to 6 acres to the hand, in addition to upland food crops, was more usual.<sup>52</sup> Toward the close of the ante bellum period an observer, describing in detail the organization of a rice plantation on the lower Savannah, declared that for 500 acres in rice and 70 to 80 acres of corn there were employed 100 men and women and 22 mules. The entire force numbered 250 of all ages.<sup>53</sup> Undoubtedly there was considerable progress in reducing the labor required. As early as 1822 Richard I. Turnbull, of South Carolina, declared that the condition of slaves in the rice region in the past thirty years had greatly improved by reason of introduction of water culture and of rice mills.<sup>54</sup>

#### SEA-ISLAND COTTON<sup>55</sup>

##### DISTINCTIVE CHARACTER OF SEA-ISLAND COTTON PRODUCTION

Sea-island cotton, in contrast with short-staple cotton, was narrowly restricted in geographic area, and after the early years there was but little expansion in location or volume of production. It was essentially different in length and quality of staple from short-staple cotton and competed but little with it, being employed for relatively distinct uses. Consequently the prices of sea-island cotton, though not unrelated to upland cotton prices, were largely differentiated from the latter in amount and movement. Furthermore, sea-island cotton became a highly intensive industry, with essential emphasis on quality, as contrasted with the extensive methods and striving for quantity characteristic of the production of short-staple.

Fancy sea-island cotton has a length of staple of 2 inches and upwards although the bulk of the crop was probably from  $1\frac{1}{2}$  to  $1\frac{3}{4}$  inches, as contrasted with  $\frac{5}{8}$  inch to 1 inch for the bulk of the upland short-staple and  $1\frac{1}{8}$  to  $1\frac{1}{2}$  for much of the upland long-staple. Moreover, sea-island cotton surpassed all other types in strength, fineness, and silkiness, being suitable for delicate laces and for cloth of silky lustre. Much of the crop was employed in various combinations with short-staple cotton.<sup>56</sup>

There was early developed a great diversity in the cotton classed as sea-island, due largely to seed selection. The leader in this practice was Kinsey Burden, of John's Island, South Carolina. About 1805 he succeeded in producing a

<sup>51</sup> Russell, R., *North America, Its Agriculture and Climate*, 175; *Southern Agriculturist*, VI, 304; new series, IV, 11.

<sup>52</sup> La Rochefoucauld, *Travels*, II, 431, 445; *Southern Agriculturist*, II, 251; VI, 302; *American Farmer*, 1 series, XV (1833-4), p. 115; *Southern Cultivator*, VIII, 86; Phillips, U. B., *Plantation and Frontier*, I, 148, 166; *De Bow's Review*, VI, 56.

<sup>53</sup> Russell, R., *North America, Its Agriculture and Climate*, 173.

<sup>54</sup> Letter quoted in Seabrook, *Appeal on the Subject of Negro Slavery*, 15.

<sup>55</sup> Concerning the introduction of sea-island cotton, see Chap. XXIX.

<sup>56</sup> United States, Dept. Agric., *Atlas of American Agriculture*, V, Sec. A., Cotton, 5; *Farmers' Register*, VII, 31.

type that sold at a premium of 25 cents a pound. He continued trying to improve his cotton by selection and painstaking methods of preparation for market. For many years he produced cotton that sold at \$1.00 a pound, in particular years as high as \$1.25 and \$1.50. He kept his methods secret, going so far as to employ members of his family in "moting" the cotton. At one time, it is said, he offered to sell his secret to the South Carolina legislature. About 1826, however, William Elliott ascertained that Burden's great success was due to seed selection, and soon he and a number of other planters were engaged in the practice. In 1828 one of them, Hugh Wilson, sold his crop for \$1.25 per pound. A lot of two bags sold for \$2.00 per pound.<sup>57</sup> Modern experimental methods could scarcely be more painstaking than the seed selection practiced by the Burdens, Seabrooks, Matthews, Elliotts, and other planters.<sup>58</sup>

There developed a régime of secret prices. Cotton buyers dealt individually with each of the planters who claimed to produce cotton of superior quality, paying a special and individual, rather than a general market, price. Whitemarsh B. Seabrook, the historian of the industry, deplored this practice, believing it worked injury to the interests of the planter himself. "Whilst the latter was made to believe, that it was to his interest to conceal from his neighbors his market transactions, it frequently happened, as might have been expected, that his cotton was sold below its real value." Although a few planters received a high premium, there was "not one planter in twenty who has not sustained a heavy pecuniary loss" by the policy.<sup>59</sup> Whereas the produce of upland cotton could always be sure of a market and of a general price level, the sea-island planter was "obliged to exercise all his patience" before he could sell his crop. Not infrequently a planter was not able to effect a sale through his factor at anything like a reasonable price, and forced to ship to England at his own risk. The planter was peculiarly dependent on his factor for credit, who in turn borrowed from the banks. Wray was impressed with the tendency of banks to favor the paper of factors rather than of planters, even though the latter were wealthy men, and with the influence of this policy in maintaining the dominance of the factors.<sup>60</sup>

Cotton of such exceptional quality was not a large proportion of the entire crop. According to Allston, in 1853 there were only eight or ten planters in South Carolina who produced the superfine sea-island cotton. Probably the bulk of the crop was raised on the mainland, under conditions producing distinctly lower quality. While particularly fine types sold for \$1 a pound or more and other types for 40 to 80 cents, average prices were little more than double those of upland cotton.<sup>61</sup> Probably some of these cottons were varieties of upland long-staple, such as the so-called Santee cotton produced between the lower courses of the Cooper and Santee rivers but ordinarily classed as sea-island cotton. Late in

<sup>57</sup> De Bow, *Industrial Resources*, I, 121; Seabrook, *Memoir on Sea Island Cotton*, 4; cf. Coggeshall's address at the agricultural fair at Jackson, Oct., 1855, in Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 235; cf. Halle, *Baumwollproduktion*, I, 79.

<sup>58</sup> *Southern Agriculturist*, I, 76, 152, 165, 174; II, 117, 246.

<sup>59</sup> *Memoir on Sea Island Cotton*, 5.

<sup>60</sup> "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 82.

<sup>61</sup> De Bow's *Review*, XIV, 509; XVI, 598; Russell, R., *North America, Its Agriculture and Climate*, 164; Allston, *Essay on Sea Coast Crops*, 18.

the period finer strains were introduced in this area. About 1828 there were said to be six varieties of sea-island cotton in cultivation, as follows:<sup>62</sup>

“(1) The clear black seed, quality coarse, quantity great. (2) The black seed covered with green down, quality better than the first, quantity not so great. (3) The black seed tipped with green down, quality fine, quantity less than the second. (4) The brown seed covered with brown down, quality silky, quantity small. (5) The brown tipped with brown down, quality superior to the fourth, quantity less. (6) The brown seed clear, with a small stem projecting at one end, quality superior to any, quantity least of all.”

In eastern South Carolina and Georgia there were three principal market classes of sea-island cotton, namely Sea-Islands, Mains, and Santees.<sup>63</sup>

There was some difference of opinion as to the relative profitableness of the superfine and ordinary sea-island cotton. The former was extremely low in yield and peculiarly liable to disease. It required unusually strong land and much more manure. The proportion of ginned cotton from a given quantity of seed was smaller than for ordinary sea-island, and the cost of preparation for market much greater. The cost of production was reckoned fully twice as high.<sup>64</sup>

#### EXPANSION OF THE INDUSTRY

It was early discovered that the finest cotton grew on the islands off the coast. The bulk of the crop was produced on those islands and on the mainland within thirty miles from the coast. Some believed this limitation due to peculiarities of soil, probably the presence of salt, but most people attributed it to the saline quality of the atmosphere. The northern limit was about the parallel of 33°. Most of the earlier sea-island cotton was produced on the sandy and sandy loam uplands of the sea islands and coast, but in the early forties two members of the Agricultural Society of St. John's Colleton discovered the adaptability of the sea marshes, when drained. During the remainder of the period there was considerable activity in draining such lands.<sup>65</sup> In the last decade of the ante bellum period there was an extension of cotton classed as sea-island farther into the interior. About 1849 long-staple, black-seed cotton was being grown in Bullock, Wayne, and Ware counties, Georgia, as much as one hundred miles from the Atlantic. A little sea-island cotton also came to be produced in small areas along the Gulf coast.<sup>66</sup> The principal extension, however, occurred in the interior of Florida, as well as on sea islands along the Florida coast.<sup>67</sup> About the beginning of the fifth decade it was discovered that the interior of northern Florida offered special advantages for sea-island cotton—a fact reluctantly admitted because of the belief that the staple degenerated when produced at a considerable distance from the sea. By 1858 the industry in Florida had increased to such an extent that the product in bales was slightly greater than

<sup>62</sup> *Southern Agriculturist*, I, 164; new series, III, 143.

<sup>63</sup> Seabrook, *Memoir on Sea Island Cotton*, 3.

<sup>64</sup> *Southern Agriculturist*, VII, 9-12.

<sup>65</sup> Russell, R., *North America, Its Agriculture and Climate*, 163; *Southern Agriculturist*, new series, II, 6; III, 143; Seabrook, *Memoir on Sea Island Cotton*, 6.

<sup>66</sup> White, G., *Statistics of Georgia*, 116, 595, 605; Mississippi, Geological Survey, *Report* (Hilgard, 1860), p. 383.

<sup>67</sup> Watkins, *King Cotton*, 125; *Farmer and Planter*, IV, 157.

that of South Carolina. The product of the three most important States for the year ending August 31, 1858, was as follows:<sup>68</sup>

Florida.....	25,685 bags
Georgia.....	10,008 "
South Carolina.....	26,663 "

The expansion of the industry in Florida was facilitated by the fact that Florida planters, free from the strong prejudices which bound the planters of the older region, made freer use of the plow and succeeded in making about twice as many acres to the hand as in the older region. Expansion into Florida was further favored by the gradual increase in demand, especially in the sixth decade. The product was classified with the Mains and Santee cottons of South Carolina. In 1846 it sold at 30 cents a pound, and in 1853 at 39 to 49 cents.<sup>69</sup>

From 1805 until about the beginning of the last decade of the ante bellum period export statistics indicate no important trend upward or downward. (See Table 44, Appendix.) Exports for the trade year 1808 were reduced to virtually nothing by the embargo, and in the trade years 1812 to 1814 were cut to less than half of normal by trade obstructions. It is probable that the larger exports of 1820 to 1823 reflect some increase in acreage due to stimulus of good prices. Average exports of the fifth decade were not noticeably higher than in the first decade. During the last decade better prices, improvements in cultivation and ginning, and the discovery of the adaptability of middle Florida and the coastal marsh lands of Georgia and South Carolina contributed to an increase of about 50 per cent in volume of exports.

#### METHODS OF PLANTING AND CULTIVATING

In early years methods of cultivation were exceedingly crude. By some the seed was planted in hills five feet apart, and by others in holes dug at intervals. Four hoeings were considered sufficient. Manure was rarely employed, new lands being cleared as needed.<sup>70</sup> In a few years, however, more efficient methods were developed.

There was great variation in quality of lands used, which ranged from light sandy loams to heavy clays. The former were preferred, and in the earlier period were mainly employed, but in time their fertility came to be so impaired that regular and extensive manuring became necessary. In Florida fresh pine and "hammock" lands were available.<sup>71</sup> Since much of the land employed was low, the ditching in many cases was almost as elaborate as in the rice industry. In addition to the main ditches, it was customary to "quarter-drain" the land; that is, divide it into square plots of  $\frac{1}{4}$  acre by cross ditches about 105 feet apart, commonly spoken of as a "task."<sup>72</sup>

<sup>68</sup> United States, Dept. Agric., *Atlas of American Agriculture*, V, Sec. A, *Cotton*, 20; cf. exports for 1848, in *New York Shipping List*, Sept. 13, 1848, quoted in *Southern Cultivator*, VI, 170.

<sup>69</sup> *De Bow's Review*, IV, 249; XI, 410; XIV, 509; XVI, 596; *Farmer and Planter*, IV, 157; V, 83-85; *Southern Agriculturist*, new series, VI, 71; *Niles' Register*, LXIX, 23; *Western Journal and Civilian*, VI, 179.

<sup>70</sup> Doar, *Sketch of the Agricultural Society of St. James, Santee*, 13.

<sup>71</sup> Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 81; Russell, R., *North America, Its Agriculture and Climate*, 164; *Western Journal and Civilian*, VI, 179; *Farmer and Gardener*, I, 246; Allston, *Essay on Sea Coast Crops*, 13.

<sup>72</sup> *Southern Agriculturist*, I, 21, 118, 152; IV, 456.

The crop was planted on high ridges thrown up at distances of 3 to 6 feet, usually about 4 feet.<sup>73</sup> In the old sea-island region the labor of throwing up the ridges and the entire work of cultivation were generally performed with the hoe until near the close of the period.<sup>74</sup> Many planters maintained permanent ridges, sometimes alternating them with provision crops. Others continued the older practice of hauling down the ridges into the baulks, bedding on the cotton stalks and other manures.<sup>75</sup> In the last two decades of the ante bellum period the plow was more generally employed.

The greater use of the plow allowed more time for manuring. The principal manure employed was marsh mud, although animal manures, salt, and later guano were more or less used.<sup>76</sup>

After the ridge was thoroughly prepared, seed was planted between the last of March and the middle of April, in one of three ways: in drills, in long hills, or in short hills. The drill method was the easiest for planting, but involved the necessity of thinning. It was necessary to have each stalk from 18 to 24 inches apart, according to the strength of the land. This was accomplished by a succession of thinnings. For the later thinnings the most skillful and intelligent hands were required. The problem of thinning was diminished under the "long-hole" method, and nearly eliminated by the "short-hole" method.<sup>77</sup>

Cultivation consisted of 4 to 8 hoeings. Sometimes plows or sweeps were employed to break out the baulks and supplement the hoeing. When necessary, grass was pulled by hand.<sup>78</sup>

#### HARVESTING AND PREPARATION FOR MARKET

The harvesting of sea-island cotton was arduous. The delicate fiber must be gathered as soon as the pods opened; otherwise, it was likely to be injured by dust, rain, and wind. It required 10 or 12 pickings, as compared with but 3 for short-staple cotton. At each picking great care was used to remove trash, leaves, and dirt. The average picking expected per hand was only about 25 pounds per day.<sup>79</sup> As soon as the cotton was gathered, it was spread on scaffolds to dry in the sun. In later years it came to be considered better to dry it in the shade. The cotton was then passed through a patent whipper to loosen the fiber, and carefully sorted in the seed.

Next came the ginning. The crude Hindoo roller gin, or "churka," was early copied by Southern mechanics. This was gradually improved. About

<sup>73</sup> *American Farmer*, 1 series (1832-4), XIV, 218; XV, 252; Russell, R., *North America, Its Agriculture and Climate*, 164.

<sup>74</sup> For the reasons for general employment of hoe-cultivation, see p. 194.

<sup>75</sup> *De Bow's Review*, XIX, 604; *American Farmer*, 1 series (1832-4), XIV, 218; XV, 211; *Southern Agriculturist*, I, 59; Allston, *Essay on Sea Coast Crops*, 13.

<sup>76</sup> *Loc. cit.*; *Southern Agriculturist*, I, 59; III, 200; IV, 344; *De Bow's Review*, XI, 208; XVI, 596; *American Farmer*, 1 series, XV (1833-4), pp. 19, 74; *Farmer and Planter*, IV, 157; *Southern Cultivator*, VIII, 115; Seabrook, *Memoir on Sea Island Cotton*, 14; Russell, R., *North America, Its Agriculture and Climate*, 165. See pp. 802-807.

<sup>77</sup> *Southern Agriculturist*, I, 118, 153; II, 265; III, 142; *De Bow's Review*, XVI, 595; *Hunt's Merchants' Magazine*, IV, 211.

<sup>78</sup> *American Farmer*, 1 series (1832-4), XIV, 219; XV, 19, 74; *Southern Agriculturist*, I, 153; III, 142-146; Allston, *Essay on Sea Coast Crops*, 14.

<sup>79</sup> Halle, *Baumwollproduktion*, I, 86; *Southern Agriculturist*, I, 154; *Hunt's Merchants' Magazine*, IV, 211; *Southern Cultivator*, VIII, 115; Watkins, *King Cotton*, 102.

1788 Alexander Bisset, of St. Simon's Island, Georgia, introduced the use of the treadle to turn the gin. A few years later devices were invented by Joseph Eve and by Longstreet for adapting the gin to horse power.<sup>80</sup> For many years, however, the treadle gin, which had fluted wooden rollers about ten inches long, was principally used. On this machine about 30 pounds a day could be ginned by an operator, and 20 to 30 of these machines sometimes stood in the same room. Improvements in mechanical construction were made from time to time, and by 1839 the treadle seemed to be disappearing.<sup>81</sup> In 1840 a Mr. McCarthy, of Florida, patented a gin that greatly facilitated the process of ginning sea-island cotton. The machine is described as follows:<sup>82</sup>

It is "a gin having one roller, say four inches in diameter and three feet in length, dressed with leather arranged spirally around it. This roller revolves over and in loose contact with a plate of sheet iron. The Cotton is received and drawn in between the two, and the seed is separated by means of a thin steel bar placed horizontally, and operating vertically in front of the roller, and with great rapidity. By the use of this machine, not only is the saving of labor considerable—a one-horse power machine will gin as much Cotton with one hand to feed it, and may be an inefficient hand otherwise, as five old gins with each a hand—but the seed is found to be less crushed than it was by the old fashioned roller gin, requiring, of course, less moting manipulation."

The McCarthy gin was quickly adopted in Florida, but in spite of its advantages nearly a dozen years elapsed before it began to be widely adopted in South Carolina.<sup>83</sup>

After ginning the cotton was carefully "moted" to remove dust, trash, and broken seed. It was then packed by hand power in round bags holding 300 to 400 pounds. European buyers paid higher prices for cotton packed in this manner than for similar cotton packed under the press.<sup>84</sup> In 1844 an agricultural committee was appointed in South Carolina to inquire into the advisability of changing from round to square bales. Their report, recommending the retention of the older method, illustrated the great care used in preparing sea-island cotton. In order to prevent the packing of carelessly moted cotton, two or three trusty hands customarily inspected the cotton in small parcels before it went to the packer. The latter was also required to inspect the parcels before putting them into the bag. The committee believed that if square bales were employed this care would not be used.<sup>85</sup>

#### ACRES PER HAND, YIELDS, AND PROFITS

Allston estimated that it required 50 to 60 days of man labor to prepare a bale of the finest sea-island cotton.<sup>86</sup> According to Von Halle, the cost of preparation

<sup>80</sup> *Southern Agriculturist*, new series, IV, 128; Watkins, *King Cotton*, 11; Wailes, *Address before the Agricultural, Horticultural, and Botanical Society of Jefferson College*, Apr. 24, 1841, p. 12.

<sup>81</sup> Russell, R., *North America, Its Agriculture and Climate*, 166; Watkins, *King Cotton*, 76, 78, 103; Wray, "Culture and Preparation of Cotton," in Royal Society of Arts, *Journal*, VII, 82; Seabrook, *Memoir on Sea Island Cotton*, 19; *Farmers' Register*, VII, 651.

<sup>82</sup> Allston, *Essay on Sea Coast Crops*, 15 n.; cf. Watkins, *King Cotton*, 128.

<sup>83</sup> *Farmer and Planter*, IV, 157.

<sup>84</sup> *De Bow's Review*, XVI, 598; *Southern Agriculturist*, I, 154; new series, III, 281; *Southern Cultivator*, VIII, 115; Halle, *Baumwollproduktion*, I, 91.

<sup>85</sup> *Southern Agriculturist*, new series, IV, 41-43.

<sup>86</sup> *Essay on Sea Coast Crops*, 15.

for market was as much as \$27 per bale, as contrasted with about 50 cents for short-staple cotton.<sup>87</sup>

The laborious methods severely limited the acreage per hand. In South Carolina and Georgia it was long customary to plant 3 to 3½ acres of cotton per hand, although some planters attempted 4 acres.<sup>88</sup> Even when land was abundant, the almost exclusive dependence on the hoe severely limited the acreage in provision crops that a hand could cultivate. In a survey of 31 plantations on Edisto Island Solon Robinson found the area cultivated per hand for all purposes averaged less than 6 acres.<sup>89</sup> In the last decades of the period progress in substituting plows for hoes and improvements in methods of ginning made possible 5 acres to the hand. Where there were virgin soils which did not require manuring, as in parts of Florida, 7 acres was possible.<sup>90</sup>

While there were instances of yields as high as 2,000 pounds of seed cotton per acre, this was not usual. The yield of lint cotton on a plantation on Edisto Island for eighteen years ranged from 60 to 223 pounds, averaging 137 pounds. The middle Florida lands were said to yield 125 to 250 pounds per acre on manured pine lands, and 250 to 400 on hammock lands.<sup>91</sup>

In spite of the high prices obtained for sea-island cotton as compared with short-staple, the extra labor normally allowed the planter of the old sea-island region no unusual profit. According to Allston, it cost about \$75 to produce a bale of common sea-island cotton, and for the finer qualities twice as much.<sup>92</sup> A planter stated in 1848 that for the past eighteen years his crops had averaged a little over 3 acres to the hand and 137 pounds per acre. The average return per hand for the period was only \$83, ranging from \$41 to \$121 in particular years.<sup>93</sup> Price fluctuations were extreme, and there were great variations in quality and quantity.<sup>94</sup> The Florida planters, however, found the industry exceedingly profitable. Their acreage per hand and average yield approximated those for short-staple cotton, while the price of the product was much above that of short-staple.<sup>95</sup>

#### PRICES

In its earliest years the production of sea-island cotton probably shared in the advantage of the generally high price level that prevailed for all cotton, besides the large differential for quality. There were occasional years of low prices, as in 1796, when choice sea-island cotton was being quoted in Savannah at only

<sup>87</sup> *Baumwollproduktion*, I, 91.

<sup>88</sup> *Southern Agriculturist*, I, 172; IV, 344; Ramsay, *History of South Carolina*, II, 540; *Southern Cultivator*, VI, 135; Allston, *Essay on Sea Coast Crops*, 14.

<sup>89</sup> *Hunt's Merchants' Magazine*, XXIII, 107.

<sup>90</sup> *Southern Agriculturist*, IV, 344; *De Bow's Review*, XVI, 596; *Hunt's Merchants' Magazine*, XXIII, 107; Allston, *Essay on Sea Coast Crops*, 14; *Farmer and Planter*, V, 85.

<sup>91</sup> Mills, *Statistics of South Carolina*, 154; *Southern Cultivator*, VI, 135; *Farmer and Planter*, IV, 157; V, 85; *Southern Agriculturist*, new series, VI, 71; *Western Journal and Civilian*, VI, 179.

<sup>92</sup> *Southern Agriculturist*, IV, 339; *De Bow's Review*, XVI, 598.

<sup>93</sup> For table by years, see *Southern Cultivator*, VI, 135. For experience of another planter in various years, see Phillips, U. B., *Plantation and Frontier*, I, 150-165.

<sup>94</sup> *De Bow's Review*, II, 278; *Carolina Gazette* (Charleston), Sept. 30, 1802.

<sup>95</sup> *Farmer and Planter*, IV, 157; *Southern Agriculturist*, new series, VI, 71; *Western Journal and Civilian*, VI, 179.

16 pence per pound.<sup>96</sup> Annual average prices at Charleston ranged from about 44 to nearly 52 cents in the first six years of the nineteenth century, except for lower prices in 1804. (Appendix, Table 43.) After 1805 prices declined sharply, reaching about 25 cents a pound in 1808 and 1809, reflecting the interruptions to trade. Prices were higher in 1810, but during the year 1811 they sagged steadily from about 30 cents a pound at the beginning of the year to less than 18 cents at the close of the year. Although high prices for sea-island cotton prevailed at Liverpool during the war years producers in America suffered severely from the interruptions to trade.<sup>97</sup> Scattering quotations for 1812 indicate prices continued at about the same level as at the close of 1811. In 1813 they sank as low as 13 cents in April, but were distinctly stronger in the closing months of the year, which witnessed the beginning of a rise that continued until October, 1814, when cotton sold at over 30 cents a pound. With the exception of a brief slump in the last two months of 1814 and in January, 1815, prices gained steadily until they reached a level of from 50 to 55 cents a pound in the closing months of 1815.

In the period following the close of the War of 1812 sea-island cotton prices followed fairly closely the major swings in the prices of upland cotton. Strong prices prevailed in 1816 and 1817, and in the first half of 1818 were swept upward by the prevailing frenzy of speculation to a peak of approximately 75 cents a pound by midsummer. From this time forward they weakened rapidly and by the close of the year 1819 were at only about half that level. They lost still more during 1820 and during the next four years averaged in the neighborhood of 25 cents, though with a range of monthly quotations varying from as low as 18 cents to as much as 33 cents a pound. The artificially manipulated cotton speculation of 1825 carried sea-island cotton quotations to as high as 87½ cents by June of that year. Prices were distinctly weaker in the last half of the year and the first half of 1826, but still at remunerative levels. In the latter half of the year, however, they showed extreme weakness, which proved to be the beginning of a severe depression that continued until the last few months of 1834. During this period annual average prices varied from nearly 26 cents in 1828 to as low as 18 in 1832. In the latter part of 1834 sea-island cotton prices began to feel the lifting influence of the inflationary movement that was affecting the general price level, and gradually climbed to a peak of 45 to 50 cents a pound in the early months of 1837, and although lower prices prevailed during the next two years, the level was about 80 per cent above what it had been during the four years preceding 1835. In 1840, however, prices opened at much lower levels, and grew weaker during the year, and throughout the fifth decade sea-island cotton shared with other Southern staples the low fortunes of that period. In the years 1842-1844 inclusive prices averaged less than 18 cents a pound. During the remainder of the fifth decade prices were somewhat better. The lowest year (1848) averaged nearly 19 cents, and the highest year (1847) a little above 31 cents.

The unsatisfactory condition of the industry at this period was the subject of

<sup>96</sup> *Columbian Museum and Savannah Advertiser*, Nov. 18, 1796.

<sup>97</sup> Burn, *Statistics of the Cotton Trade*, 21. See Appendix, Table 43.



contemporary comment. In his *Memoir*, published in 1847, Seabrook declared, "From the time when long-cotton was first introduced into this State, to within a recent date, its cultivation was decidedly profitable. Now legal interest on the capital of the growers is rarely ever realized." He was inclined to attribute the ills of the industry to the tariff, asserting that from 1827 to 1833 inclusive, when the tariff policy was in the ascendant, the average price "was less by about 5 pence than at any former or succeeding corresponding period." In 1830 to 1832 inclusive the price fell to about  $14\frac{1}{2}$  pence in spite of short crops. After the Compromise Tariff somewhat better prices were realized.<sup>98</sup> Seabrook was chairman of a committee of the South Carolina Agricultural Society which reported about 1839 on the conditions of the industry. The committee declared that from 1821 to 1829 inclusive, when average exports were 11,016,418 pounds, average prices at Liverpool were 19 pence. From 1830 to 1835 (excluding 1833) exports averaged 8,208,794 pounds, and prices  $17\frac{1}{4}$  pence. The crops of 1836 and 1837 brought better prices, averaging 25 pence, but the yields had been so meager that the two crops together amounted to only about 12,000,000 pounds, and planters were not able to realize a net value of more than 4 per cent.<sup>99</sup>

The sea-island industry shared in the prosperity of the fifties. Prices improved considerably in 1850 and 1851, and by 1852 reached an average of above 37 cents and over 41 cents the following year. In 1853 Allston declared that reasonably good, though not the finest, sea-island cotton, made with the proper use of the plow and cleaned by improved machinery, yielded "a very handsome interest upon the capital invested, say, not less than from ten to twelve per cent."<sup>100</sup> Prices averaged better than 30 cents a pound in every remaining year of the ante bellum period except in 1858, when the average fell to a little over 29 cents. In 1860 the planters enjoyed the high average of 47 cents. Thus, for sea-island cotton, as for other Southern staples, the Civil War terminated a period of exceptional prosperity.

#### THE SUGAR INDUSTRY

##### BEGINNINGS AND SUBSEQUENT GROWTH OF THE INDUSTRY

The various experiments during the French régime in cultivating sugar in Louisiana failed to establish the industry on a commercial basis. It is possible a few planters made syrup or crude sugar for domestic use, but the art of making sugar for commerce was highly technical and had not been successfully mastered.<sup>101</sup> About 1791 two Spanish planters, Mendez and Solis, began to plant more extensively, the one making syrup and the other taffia, a spirituous liquor. In 1795 one Etienne Boré undertook in earnest the task of making a success of commercial sugar production. He devoted a plantation of thirty Negroes to the purpose, imported an experienced sugar maker from San Domingo, and built a mill, drying room, and shed. Because he persisted until success was achieved, Boré is entitled to be regarded as the father of the industry in Louisiana. Great

<sup>98</sup> *Memoir on Sea Island Cotton*, 3-4.

<sup>99</sup> *Farmers' Register*, VII, 31.

<sup>100</sup> *Essay on Sea Coast Crops*, 17-18.

<sup>101</sup> Martin, F. X., *History of Louisiana* (1882 ed.), 263; *De Bow's Review*, XXII, 616. See above, p. 76.

impetus was given shortly afterwards by the arrival of refugees from San Domingo bringing the century-old experience of the West Indies.<sup>102</sup>

From this time the industry grew rapidly, a growth stimulated by the collapse of the indigo industry. By 1798 there were a number of sugar plantations above New Orleans.<sup>103</sup> In 1801–1802 about 75 plantations were engaged in the industry, with an annual total product estimated at 4,000,000 to 8,400,000 pounds of sugar.<sup>104</sup> Even at this time the industry was depending largely on the American market, which imported from Louisiana and Florida over 1,500,000 pounds in 1800 and 1802 respectively. American occupation opened the American market free of duty.<sup>105</sup> Within a few years travellers along the lower Mississippi were deeply impressed by the evidences of prosperity exhibited by luxurious plantation houses with landscaped gardens and by the large reputed incomes of the planters.<sup>106</sup>

By the five-year period 1823–24 to 1827–28 the average product was about 30,000 hogsheads a year, usually estimated at about 1,000 pounds each. (See Table 45, Appendix.) During the next five years the annual average number of hogsheads was more than doubled. There was little further increase until the beginning of the fifth decade, when there was a rapid increase, and by the closing years of the decade the annual average had come to be about 235,000 hogsheads a year. By this time, moreover, the hogshead averaged nearly 1,100 pounds. During the three years 1852–53 to 1854–55 annual production averaged 372,631 hogsheads, but during the remaining years of the period, except in 1858–59, unfavorable conditions led to a considerably smaller output.

#### TECHNICAL PROGRESS

The disadvantages of Louisiana in climate, as compared with the French West Indies, necessitating more frequent replantings and permitting a yield only about half as large,<sup>107</sup> were partly overcome by the enterprise of the planters and by technical progress in sugar production.

An important source of improvement was the introduction of new varieties. In the closing years of the eighteenth century Otaheite cane had been substituted for the sensitive Malabar and Creole varieties. In 1817 the introduction by Jean Jacques Coiron of the ribbon cane, a very hardy variety, greatly lessened the precariousness of the industry and increased its territorial limits. It was soon widely adopted, though the Otaheite varieties continued to be cultivated more or less. The ribbon cane ripened nearly a month earlier than the older varieties,

<sup>102</sup> Martin, F. X., *History of Louisiana* (1882 ed.), 263; Perrin du Lac, *Travels* (Phillips, Collection of Voyages, VI), 87; Gayarré, *History of Louisiana*, II, 63; cf. Judge Rost's address before the Mechanical and Agricultural Association of Louisiana, in *Hunt's Merchants' Magazine*, XXX, 377; *De Bow's Review*, XXII, 617–619; translation of General Collot's description of De Boré's sugar house, in *Louisiana Historical Quarterly*, I, No. 4, pp. 327–329; *Affleck's Southern Rural Almanac for 1851 and 1852*, pp. 7, 12.

<sup>103</sup> Baudry des Lozières, *Voyage à la Louisiane*, 163, 217.

<sup>104</sup> Perrin du Lac gives the larger figure. *Travels* (Phillips, Collection of Voyages, VI), 91. Berquin-Duvallon gives several estimates ranging from 4,000,000 to 5,000,000 pounds. *Vue de la Colonie Espagnole du Mississippi*, 132; *idem, Travels in Louisiana and the Floridas* (Davis), 142.

<sup>105</sup> United States, President Jefferson, *Account of Louisiana*, 28.

<sup>106</sup> Claiborne, W. C. C., *Official Letter Books*, III, 361–364; Cumming, *Sketches of a Tour to the Western Country*, 327–332.

<sup>107</sup> Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 8–10.

but the exceedingly hard bark made it difficult to extract a large percentage of juice with the crude mills driven by oxen.<sup>108</sup> This difficulty was overcome by the introduction of steam power in 1822 and by the gradual improvement of sugar mills. By 1830 about 100 of the 725 mills in Louisiana were operated by steam, and by 1844, 408 out of 762.<sup>109</sup>

Under methods introduced from the West Indies, the cane juice, tempered by lime in order to disunite the impurities, neutralize acids, and facilitate granulation, was boiled in a series of kettles over open fires. The several kettles in order were locally named the grande, the flambeau, the sirop, and the batterie, tache, or concentrator. Sometimes a clarifier was added, into which the liquid went before it reached the grande. These kettles were ranged in line over a furnace. The fire was made under the batterie and passed through a canal leading under the other kettles to a chimney located at the end of the grande and so constructed as to generate a strong draft. The juice was passed from the receiver to the grande, where it was mixed with the requisite quantity of lime, a procedure requiring experience and nice judgment. The liquor was gradually passed from one kettle to another until it reached the batterie, where it was boiled to the point of crystalization and then drawn off into coolers. The impurities were skimmed off with ladles. In the earlier years the syrup was emptied from one kettle to another by dippers. The resulting product—a mass of sugar and molasses—was packed in hogsheads and then placed in sugar houses, where the molasses drained into a cistern.<sup>110</sup> A number of specialized buildings were required for plants of this type. About 1836 the desirable buildings for a Florida sugar plantation of average size included a boiling house 40 by 60 feet; a cooling shed containing at least 9 coolers; a curing house in which the sugar was stored and the syrup allowed to drip into cisterns beneath; a still house (if molasses was distilled); and finally, a trash house, where the refuse (bagasse) was cured to be used for fuel.<sup>111</sup> A number of simple improvements were introduced. The series of kettles was placed over a furnace constructed of brick, thus effecting considerable economy of fuel. Endless chains were employed to draw the heavy cane from the storage shed to the mill. The old-time wooden rollers of the mill were covered with iron. By these methods it was possible to manufacture about 10,000 pounds every twenty-four hours. The quality, however, was very poor; and the highest skill was requisite in regulating the heat and timing the boiling process. This type of plant was extremely wasteful of fuel, consuming 2 to 3½ cords of wood

<sup>108</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 11; *Southern Agriculturist*, I, 179, 236; answers of the Central Committee of Sugar Planters of the State of Louisiana to the Circular of the Hon. S. D. Ingham, Secretary of the Treasury, 1830, in *ibid.*, IV, 160; *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 7; *Farmer and Gardener*, II, 404; *Mercantile Daily Advertiser* (New Orleans), Nov. 1, 1825; *Louisiana Journal* (St. Francisville), Oct. 29, 1825.

<sup>109</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 9; Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 3.

<sup>110</sup> *Farmer and Gardener*, II, 404; United States, Patent Office, *Annual Report*, 1845, p. 298; Judd, *Improvement in the Manufacture of Sugar*. For illustration of such a plant, see Cleland, *Culture of Sugar Cane in East Florida*, 29. (Also contains an account of the method of construction.) Cf. Lewis, *Journal of a West India Proprietor*, 86-88.

<sup>111</sup> For illustrations, see Cleland, *Culture of Sugar Cane in East Florida*, 22-26.

for each hogshead of sugar. By the fourth decade many planters had exhausted their fuel supply and were compelled to purchase wood or import coal.<sup>112</sup>

In the last twenty years of the ante bellum period sugar-making was developed from an agricultural by-industry into an elaborate system of manufacturing. In 1830 unsuccessful experiments were made on several plantations to clarify and boil the crop entirely by steam. In 1831 an English firm constructed an extensive sugar factory containing a complete steam apparatus, including vacuum pans. As early as 1830 (or possibly 1832) the first vacuum pans to be employed on a Louisiana plantation were introduced by Thomas A. Morgan, of Plaquemines Parish, and about the same time by Gordon and Forstall and by Valcour Aime. By better methods of grinding, the amount of juice obtained was increased about 30 per cent. A great economy in fuel was effected by the substitution of double-bottom kettles, fitted with steam coils, and by the Rillieux invention for using steam from the syrup in heating the kettles. Great improvements were made in technical arrangements for skimming and for removing syrup from one kettle to another. Quality was greatly bettered by introduction of the Dumont filters, by means of which syrup was passed through boneblack to remove impurities and to bleach the liquid. The centrifugal method of crystallization was adopted, and the chemistry of sugar production illuminated by the researches of French and German chemists.<sup>113</sup>

Molasses was a by-product of sugar production. By open-kettle methods of manufacture 100 imperial gallons of cane juice, with an average density of 9° of Beaumé's, gave a first return of 112 pounds of Muscovado sugar. After curing, there was obtained cured sugar amounting to 71 per cent. The residue consisted of molasses and "cistern bottoms," the latter being the semifluid mass that settled at the bottom of the cistern. Planters were accustomed to clear out these cisterns periodically and reboil the scrapings, but in the forties sugar refiners in New Orleans and St. Louis began to purchase them, from which they manufactured inferior grades of sugar and molasses.<sup>114</sup> In the early years some of the molasses was distilled into spirits, but with the rise of temperance societies the practice was largely abandoned.

The number of estates having steam engines increased from 82 in 1827 to 408 in 1843, and the horse mills, from 226 to 354. In 1843 only 5 estates were equipped for the vacuum pan process. By 1853 the number of estates had increased to 1,481, of which 538 employed mills operated by horsepower and producing 100 hogsheads or less. The vacuum process was in use on 53 estates.<sup>115</sup> Many old-fashioned open-kettle plants continued to be employed by small planters, though

<sup>112</sup> *Southern Agriculturist*, I, 181; IV, 162; *American Farmer*, 1 series, XII (1830-1), p. 379; United States, Patent Office, *Annual Report*, 1845, p. 298; *De Bow's Review*, II, 332; *Hunt's Merchants' Magazine*, XVIII, 337; XXIV, 119; Cleland, *Culture of Sugar Cane in East Florida*, 31-34.

<sup>113</sup> *De Bow's Review*, I, 164-166; II, 334-344; III, 386; IV, 296-310; V, 47-57, 285-287; VIII, 59-63, 111-122; X, 386-404; XIII, 72; cf. Fortier, *History of Louisiana*, III, 229; Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 3-5, 28-30, 54-59; *Western Journal and Civilian*, V, 128.

<sup>114</sup> Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 2, 71-73.

<sup>115</sup> *De Bow's Review*, I, 55; *Hunt's Merchants' Magazine*, XXX, 499; United States, Patent Office, *Annual Report*, 1845, p. 901.

in some cases they united their capital to construct a sugar mill. Others had their cane manufactured at the mills of wealthier neighbors.<sup>116</sup>

The large amount of mechanical equipment required, the highly technical nature of the business, and the necessity of employing skilled sugar manufacturers created a strong tendency toward large-scale organization whenever production was on a commercial basis.<sup>117</sup> Table 27 contains an estimate of the number of estates in 1853, classified according to amount of product.

As a result of technical progress the productivity of slave labor in the sugar industry was greatly increased during the first half of the nineteenth century. In 1830 a committee of planters reported the average annual return on 20 contiguous plantations during the period 1825-1829 was 4.03 hogsheads per hand and 2.61 per slave. These were probably well managed places.<sup>118</sup> About two

TABLE 27.—*Sugar estates in Louisiana, 1853, classified according to amount of product and capital value*<sup>1</sup>

Number of estates	Productive capacity of cane-sugar	Estimated average capital value, including machinery and slaves	Estimated aggregate capital value
	<i>hhd.s.</i>	<i>dollars</i>	<i>dollars</i>
548	100 or less	40,000	21,920,000
347	100 to 200	75,000	26,025,000
232	200 to 300	90,000	20,884,000
132	300 to 400	125,000	16,500,000
81	400 to 500	150,000	12,150,000
64	500 to 600	175,000	11,200,000
33	600 to 700	200,000	6,600,000
14	700 to 800	225,000	3,150,000
9	800 to 900	250,000	2,250,000
10	900 to 1,000	275,000	2,750,000
6	1,000 to 1,100	300,000	1,800,000
2	1,100 to 1,200	325,000	650,000
3	1,200 to 2,000	350,000	1,050,000
1,481	.....	.....	126,929,000

<sup>1</sup> Estimate by a contemporary sugar statistician, in *Hunt's Merchants' Magazine*, XXX, 500.

decades later Forstall estimated that in normal years 5 hogsheads of sugar and 250 gallons of molasses might be produced by well managed estates worked to full capacity. The average for the region as a whole was considerably lower. The estimated yield per slave for slaves of all ages averaged 3.14 hogsheads in 1845 and 2.55 hogsheads in 1853. Receipts per hand above \$300 were not uncommon, and it is probable that receipts of \$250 were usual for well managed estates.<sup>119</sup>

It is estimated that the cost of producing sugar was between 3½ and 4 cents a pound, allowing no interest on capital. According to Forstall, when sugar sold

<sup>116</sup> *Ibid.*, 902.

<sup>117</sup> See Chap. XXIII.

<sup>118</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 8.

<sup>119</sup> *Ibid.*, 6 et seq.; Forstall, *Agricultural Productions of Louisiana*, 6; *De Bow's Review*, VIII, 36; cf. Moody, "Slavery on Louisiana Sugar Plantations," in *Louisiana Historical Quarterly*, VII, 285-294; *Niles' Register*, XXXII, 101, 241; XLIV, 386; *Farmer and Gardener*, II, 404.

for  $4\frac{1}{2}$  cents a pound and cotton for 6 cents profits per slave were considered about equal.<sup>120</sup>

#### PRICES AND TARIFF PROTECTION

At the close of the War of 1812 sugar prices were at a high level. For February 24, 1815, sugar at New Orleans was quoted at  $8\frac{1}{2}$  to 9 cents, and by December 8, at 13 cents.<sup>121</sup> For January 5, 1816, it was "dull" at 12 cents.<sup>122</sup> By May 12 it had increased to 16 cents, but when the new crop began to appear in December, 1816, fell to 10 cents.<sup>123</sup> From 1818 to 1822 inclusive prices averaged each year from  $8\frac{3}{4}$  to above 11 cents (Appendix, Table 46), and even the panic of 1819 did not seriously affect the price of sugar. The period 1823 to 1830 inclusive was marked by annual averages for each year above 6 cents. Prices were between 5 and 6 cents in 1831, 1832, and 1834, but responded to the speculative movement of 1835 and 1836, reaching an average of over 8 cents in the latter year. The panic of 1837 caused prices for certain months to fall as low as 5 cents, but by harvest time there was some improvement, and annual averages for the next two years were above 6 cents.

The crop of 1839, however, sold at extremely poor prices, which were as low as  $3\frac{3}{8}$  cents in the Spring of 1840. Prices averaged below 5 cents also in 1842 and 1843; but during the remainder of the fifth decade were favorable, excepting 1848 and 1849. During the next eleven years prices averaged above 5 cents in every year except 1853 and 1854, when prices were weakened by the influence of enormous harvests for the three crop years 1852-1854 inclusive. These large crops, however, sold at prices sufficiently high to bring an unusually large gross return. (See Appendix, Table 45.) In the last five years of the period annual prices averaged above 7 cents in every year, soaring to above 10 cents in 1857 by reason of the virtual failure of the crop of 1856. Thus, sugar shared with other Southern staples in the great prosperity that characterized the period just preceding the cataclysm that ended the old régime in the South.

When Louisiana was purchased, the sugar industry gained the advantage of a wide and growing market protected by a revenue duty of  $2\frac{1}{2}$  cents per pound on brown sugar and 3 cents on clayed sugar. In 1812 the duty on raw sugar was increased to 5 cents as a war measure, but in 1816 it was lowered to 3 cents. Between 1816 and 1828-29 annual production increased threefold. (Appendix, Table 45.) By 1828 the capital invested was estimated at \$34,000,000, and sugar was being produced in appreciable quantities in parishes as far north as Pointe Coupée and East and West Baton Rouge. Under the stimulus of the tariff of 1828 new investments were made with great rapidity.<sup>124</sup>

Beginning with 1832 the duty on raw sugar was lowered to  $2\frac{1}{2}$  cents, and on

<sup>120</sup> *De Bow's Review*, VIII, 36; United States, Patent Office, *Annual Reports*, 1848, p. 513; 1849, *Agriculture*, 169; *Southern Agriculturist*, IV, 164.

<sup>121</sup> *New York Shipping and Commercial List*, Apr. 7, 1815; Jan. 16, 1816.

<sup>122</sup> *Orleans Gazette and Commercial Advertiser*, Jan. 5, 1816.

<sup>123</sup> *New York Shipping and Commercial List*, June 7, 1816; Jan. 10, Feb. 4, 1817.

<sup>124</sup> United States, *Rates of Duty on Imports into the United States* (*Senate Report*, 51 Cong., 2 sess., No. 2130), pp. 137, 164; article "Sugar in Louisiana," in *Carolina Planter* (1840), p. 164; cf. *The Democrat* (Huntsville, Ala.), Oct. 9, 1829.

clayed sugar to  $3\frac{1}{8}$  cents. This was still a large fraction of the selling price, which was quoted in January, 1831, at 5 to  $5\frac{1}{4}$  cents for first quality. The tariff on molasses was reduced from 10 cents to 5 cents a gallon.<sup>125</sup> These changes resulted in a great deal of complaint by planters, probably because of lower prices in 1831 and 1832. From 1830 to 1841 inclusive 156 estates abandoned the industry, and about one half of the remainder maintained merely a self-sufficing economy.<sup>126</sup> Nevertheless, prices averaged above 6 cents in every year of the period from 1833 to 1841 inclusive, except in 1834, 1837, and 1840. The decrease in number of estates was probably due partly to good prices for cotton and partly to increase in size of holdings, for the average annual product increased slightly. Moreover, some new estates were established.

The tariff of 1842 retained the rate of  $2\frac{1}{2}$  cents on brown sugar, but increased the rate on white, clayed, and powdered sugar from  $3\frac{1}{8}$  to 6 cents. This enormous increase was a great advantage to planters equipped to produce refined sugar. Moreover, except for 1843, prices were at favorable levels until after the tariff changes of 1846. Thousands of Irish were set to work digging new ditches in order to expand the available crop area, estates advanced in value, and by 1847-48 average annual production had increased about threefold since 1828-29. The tariff of 1846 changed the old specific rate to an ad valorem rate of 30 per cent, both on brown and on refined sugar. This was considerably lower than the old specific rate, and the sugar planters complained loudly, predicting the ruin of the industry.<sup>127</sup> The dissatisfaction appears to have had some justification in the comparatively low level of prices from 1848 to 1854 inclusive. In spite of the clamor, however, the industry was expanding with great rapidity, and from 1845 to 1853 the number of slaves employed nearly doubled. This expansion was probably due in part to low prices of cotton during the fifth decade. In 1857 the tariff rate was further lowered to 24 per cent, but under the impulse of high world prices the industry continued prosperous until 1860.<sup>128</sup>

In fact, the industry was probably affected more by the world price of sugar than by the tariff or domestic prices.<sup>129</sup> This is suggested in Table 28. From 1830 to 1846 prices of sugar in countries from which imports were considerably lower, with the exception of two years, than from 1821 to 1829 inclusive. These low world prices were probably more influential than the slight reduction in duty in discouraging the producers during the period 1830-1842. Moreover, the reduction in duties may have strengthened world prices through stimulating imports by the United States. The reduction in the margin allowed between

<sup>125</sup> United States, *Rates of Duty on Imports into the United States* (Senate Report, 51 Cong., 2 sess., No. 2130), pp. 157, 165; cf. *idem*, Dept. Treas., Bur. of Statistics, *Tables in Regard to Sugar and Molasses*, 646; cf. *Louisiana Courier* (New Orleans), Jan. 10, 1831.

<sup>126</sup> *Carolina Planter* (1840), p. 164; De Bow, *Industrial Resources*, III, 275; cf. *Dollar Farmer*, II, 185.

<sup>127</sup> *Carolina Planter* (1840), p. 164; *American Farmer*, 1 series, XII (1830-1), p. 385; *Hunt's Merchants' Magazine*, XXXV, 248; XXXIX, 545; *De Bow's Review*, I, 55; United States, *Rates of Duty on Imports into the United States* (Senate Report, 51 Cong., 2 sess., No. 2130), pp. 165, 220.

<sup>128</sup> *Ibid.*, 220; *idem*, Patent Office, *Annual Reports*, 1845, pp. 902, 974; 1848, p. 513; 1849, *Agriculture*, 159; *De Bow's Review*, I, 55; III, 414.

<sup>129</sup> This conclusion is in line with the general attitude of Professor F. W. Taussig that the actual influence of the tariff on the prosperity of particular industries has been greatly exaggerated. *Tariff History*, 53-57. In that volume, however, he does not specifically discuss the sugar industry in the period before the Civil War.

raw and refined sugar probably affected unfavorably the profits of refiners and of those planters who produced refined sugars. From 1833 to 1841 inclusive do-

TABLE 28.—Average cost per pound in the country whence imported, and average specific and ad valorem rates of duty on each grade of sugar entered for consumption in the United States during each fiscal year from 1821 to 1861 inclusive<sup>1</sup>

Year ending	Brown			White, clayed, and powdered		
	Cost per pound	Rates of duty		Cost per pound	Rates of duty	
		Average specific rate per pound	Equivalent ad valorem		Average specific rate per pound	Equivalent ad valorem
	<i>Cents</i>	<i>Cents</i>	<i>Per cent</i>	<i>Cents</i>	<i>Cents</i>	<i>Per cent</i>
Sept. 30—						
1821.....	5.20	3.	57.64	2.66	4.	150.29
1822.....	5.37	3.	55.87	5.55	4.	72.06
1823.....	4.49	3.	66.71	5.62	4.	71.15
1824.....	4.83	3.	62.07	8.30	4.	48.18
1825.....	5.29	3.	56.70	2.58	4.	154.62
1826.....	5.52	3.	54.36	6.59	4.	60.66
1827.....	5.47	3.	54.77	6.27	4.	63.78
1828.....	5.71	3.	52.51	7.85	4.	50.90
1829.....	5.36	3.	55.96	7.86	4.	50.88
1830.....	4.97	3.	60.36	7.66	4.	52.16
1831.....	4.10	3.	73.13	6.84	4.	58.45
1832.....	4.01	3.	74.79	5.31	4.	75.35
1833.....	4.52	2.50	54.09	6.31	3.125	49.49
1834.....	4.56	2.50	54.73	5.99	3.125	52.13
1835.....	5.06	2.50	49.37	6.94	3.125	44.98
1836.....	6.10	2.50	40.99	8.01	3.125	39.03
1837.....	4.81	2.50	51.93	3.85	3.125	77.12
1838.....	4.59	2.50	54.41	6.72	3.125	46.47
1839.....	4.83	2.50	51.73	7.21	3.125	43.33
1840.....	4.27	2.50	58.57	.99	3.125	313.21
1841.....	4.56	2.50	54.75	5.44	3.125	57.41
1842.....	3.45	2.50	72.29	5.43	3.125	57.51
June 30—						
1843.....	3.46	2.50	71.93	5.81	6.	103.14
1844.....	3.76	2.50	66.48	5.49	6.	109.22
1845.....	3.98	2.50	62.73	3.81	6.	157.40
1846.....	4.04	2.50	61.84	7.64	6.	78.45
1847.....	4.09	1.39	33.94	4.52	.86	19.09
1848.....	3.54	1.06	30.	4.68	1.40	30.
1849.....	2.95	.89	30.	3.01	.90	30.
1850.....	3.33	.99	30.	4.02	1.21	30.
1851.....	3.53	1.05	30.	4.01	1.20	30.
1852.....	3.11	.93	30.	3.37	1.01	30.
1853.....	3.16	.95	30.	3.87	1.16	30.
1854.....	2.87	.86	30.	3.90	1.17	30.
1855.....	3.03	.90	30.	4.27	1.28	30.
1856.....	4.09	1.22	30.	4.54	1.36	30.
1857.....	5.47	1.64	30.	5.36	1.60	30.
1858.....	4.28	1.02	24.	6.26	1.50	24.
1859.....	4.58	1.10	24.	6.03	1.45	24.
1860.....	4.41	1.02	24.	5.63	1.35	24.
1861.....	3.71	.89	24.21	4.35	1.32	30.20

<sup>1</sup> United States, Dept. Treas., Bur. of Statistics, *Tables in Regard to Sugar and Molasses*, 646-647.

mestic prices were 5½ cents per pound or more in every year except 1840. The tariff of 1842 created a huge differential between raw and refined sugar, but without increasing the duty on the former. It was credited with greatly stimulating the industry. Whatever the reason may have been, the fairly good domestic



prices of 1844–1846 inclusive were evidently not due to high world prices during that period. The ad valorem tariff of 1846 was in effect equivalent to a great reduction in specific rates on brown sugar, and an even greater reduction on refined sugar. The foreign market prices also tended to be lower from 1848 to 1855 inclusive than they had been in preceding years. Average annual domestic prices were below  $5\frac{1}{2}$  cents per pound during six of the nine years from 1847 to 1855 inclusive. The coincidence of low foreign prices and low rates of duty should have been a severe blow to the industry, and did result in much complaint. It is difficult to reconcile this, however, with the rapid growth of the industry unless we assume that the tendency was due to the joint influence of technical progress and the unprofitable prices of cotton prior to 1850. As already noted, the four years following the lowering of the rate in 1857 was a period of high world prices. The benefit to Louisiana producers was offset somewhat by the heavy loss on the crop of 1856–57, which was so much injured by frosts in November that it was reduced to less than a fourth of a normal crop. In the next three years a combination of good yields and prices brought large returns to the planters.<sup>130</sup>

It was the settled conviction of the majority of sugar planters that the industry was essentially dependent on tariff protection. It was held about 1830 that the current prices of slaves in Louisiana were based on a price of  $5\frac{1}{2}$  cents per pound for sugar. Of this,  $3\frac{1}{2}$  cents was said to constitute expense, not including interest on capital. Since the alleged net return was only 2 cents and the tariff rate had been 3 cents since 1817, it was asserted that the complete removal of the duty would more than eliminate all net return on investment.<sup>131</sup> In 1840, however, it was claimed that with sugar at 6 cents a pound and molasses at 20 cents a gallon a return of only 5.5 per cent could be earned by the invested capital, estimated at \$70,000,000. At 5 cents for sugar and 17 cents for molasses the net return would be 4 per cent, and at 3 cents and 16 cents respectively, only 2.8 per cent. It was declared that while sugar in Louisiana could not profitably be made for less than  $5\frac{1}{2}$  cents, it could be produced profitably in the West Indies for 3 cents.<sup>132</sup> In order to justify a protective policy in the face of free trade convictions of sister States, strong emphasis was laid on the large purchases by sugar planters of the pork, corn, mules, coal, iron, machinery, and tobacco of the Ohio valley, and the large number of slaves brought from other Southern States. It was alleged that three fifths of the total product went to repay residents of other States for their various contributions in making the product. Appeal was also made to the infant industry argument, and the hope was held out that when the industry became fully established sugar would be cheaper.<sup>133</sup>

The applicability of the tariff was based on the fact that, unlike other Southern

<sup>130</sup> *Louisiana Courier* (New Orleans), Sept. 1, 1855; Aug. 31, 1856; Aug. 29, 1857; Aug. 31, 1858. See also Appendix, Table 45.

<sup>131</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 4; report in *American Farmer*, 1 series, XII (1830–1), p. 385. In connection with a rebuttal of his argument by another contemporary controversialist, see *Le Courier de la Louisiane* (New Orleans), Mar. 23, 1832.

<sup>132</sup> Substance of a memorial from the Louisiana legislature to Congress, quoted in *Carolina Planter* (1840), p. 164.

<sup>133</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 5, 10.

staples, sugar was produced in less volume than the consumption of the nation. Practically all the Louisiana crop was regularly produced for American consumption. About 1830 approximately one half was shipped up the Mississippi, and the remainder to the Atlantic coast.<sup>134</sup>

#### GEOGRAPHIC EXTENT OF THE INDUSTRY

Originally confined chiefly to the parishes along the Mississippi and immediately north of New Orleans, the sugar industry spread into the southwestern parishes adjoining Bayou Sara and Vermillion Bay, and along the Mississippi as far north as Pointe Coupée. In certain parishes sugar was the principal industry,<sup>135</sup> while in certain other parishes it had a strong and permanent foothold but was in continual competition with cotton.<sup>136</sup> In still other parishes the industry had no permanent foothold, but experiments were made from time to time under the stimulus of unusually high prices of sugar or because of excessively low prices of cotton. This tendency was especially strong during the great depression of the fifth decade.<sup>137</sup>

TABLE 29.—*Production of cane sugar in the principal sugar producing States of the United States, 1850 and 1860<sup>1</sup>*

States	1850	1860
	<i>hogsheads</i>	<i>hogsheads</i>
United States.....	236,814	230,982
Louisiana.....	226,001	221,726
Texas.....	7,032	5,099
Florida.....	2,750	1,669
Georgia.....	846	1,167
Mississippi.....	8	506
South Carolina.....	77	198

<sup>1</sup> *United States Census, 1860, Agriculture, 187, 191.*

As early as 1805 the sugar industry was begun in Georgia by Thomas Spaulding, according to his own account. Other planters in Georgia and South Carolina took it up, combining it with sea-island cotton. In 1828 there were 100 plantations between the Altamaha and Oconee rivers growing sugar-cane, and an equal number on the Savannah. Sugar-cane was widely grown throughout southern Georgia and the Gulf coastal plain as a syrup crop for home consumption, and on many plantations in South Carolina.<sup>138</sup> Sugar production was carried on sporadically in southern Alabama and Mississippi.<sup>139</sup> There was also great excitement, beginning in the twenties and recurring at various intervals, concern-

<sup>134</sup> Johnston, J. S., *Letter to the Secretary of the Treasury relative to the Culture of Sugar Cane*, 9.

<sup>135</sup> St. Mary, Ascension, Iberville, St. James, Lafourche, Plaquemines, Terrebonne, Assumption, St. Charles, St. John the Baptist, Jefferson, St. Martin, Orleans, and St. Bernard.

<sup>136</sup> Rapides, East and West Baton Rouge, Pointe Coupée, St. Landry, Lafayette, Avoyelles.

<sup>137</sup> These parishes were East and West Feliciana, Catahoula, Concordia, Tensas, Natchitoches, Vermillion, Calcasieu. Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 1-3; *De Bow's Review*, I, 53; II, 442; III, 414; *Southern Cultivator*, V, 179; United States, Patent Office, *Annual Reports*, 1845, p. 902; 1847, p. 179; *Niles' Register*, XXXII, 195, 241; *Louisiana Courier* (New Orleans), Feb. 6, 1832.

<sup>138</sup> *Southern Agriculturist*, II, 55, 96, 98; III, 53, 65; VI, 143, 362; *American Farmer*, 1 series (1829-34), XI, 283; XV, 18; *Niles' Register*, IV, 200; V, 113; VI, 200; VIII, 152; *De Bow's Review*, V, 183.

<sup>139</sup> *Mobile Register*, quoted in *New Orleans Argus*, Nov. 14, 1829; *Niles' Register*, LXXIV, 343.

ing the possibility of developing the industry in Florida.<sup>140</sup> Similar interest was awakened in Texas in the last two decades. In Brazoria County the industry obtained a considerable foothold. The Texas industry reached the high point of its development in 1852-53, when the crop amounted to over 16,000 hogsheads. By 1856-57 production had declined greatly, attributed to a succession of exceedingly unfavorable seasons.<sup>141</sup>

For the nine years 1852-53 to 1860-61 inclusive the sugar production of Louisiana averaged 314,122,000 pounds, and that produced in other Southern States averaged 17,717,000 pounds.<sup>142</sup> (See also Table 29.)

#### CULTIVATION AND MARKETING

Sugar-cane was raised most successfully in the rich alluvial soils of river bottoms or bayous. The natural slope away from the streams made it possible to drain the land to the swamps and bayous. On account of the heavy rainfall it was found desirable to ditch and cross-ditch the fields. The main ditches were about 180 feet apart, and the cross-ditches about 100 feet apart.<sup>143</sup>

In southern Louisiana cane was replanted every third year. The other two thirds of the crop consisted of "rattoons", that is, cane that sprang up from the roots after the previous crop was cut. About one fourth of each year's crop was required for seed cane, usually obtained from the oldest ratoons. In the northern parts of the sugar region cane would not ratoon twice in succession. In fact, the parallel of 31° north was approximately the northern limit of the cane region. In order to avoid risk of frost, planters usually pulled the seed cane in October and piled it in mattresses (*matelas*), the cane resting against an embankment and covered to a depth of a foot or more with leaves, cane tops, and trash. In Louisiana the season was too short for cane to ripen completely. The planter was between Scylla and Charybdis. If he postponed the beginning of harvest too late, frost cut short the grinding; if he began too early, he must cut his cane when only a small proportion was ripe. Harvest was therefore a season of severe pressure when the manufacture of sugar was carried on night and day. A common requirement was that each hand should work every third night.<sup>144</sup>

As everywhere in the lower South, the one-crop system long prevailed. Scarcity of suitable land and its increasing exhaustion gradually forced the planters to grow peas as a fertilizing crop, supplemented by plowing-in cane, bagasse, and whatever animal manures the plantation afforded. Three-field and four-

<sup>140</sup> Cleland, *Culture of Sugar Cane in East Florida*, pp. xi-xv; *Western Journal and Civilian*, VI, 179; *American Farmer*, 1 series, XII (1830-1), p. 391; United States, Patent Office, *Annual Reports*, 1845, pp. 911-914; 1851, *Agriculture*, 327-329; *De Bow's Review*, IV, 248; *Niles' Register*, XXX, 241; *Virginia Herald* (Fredericksburg), Feb. 13, 1828; *Louisville Public Advertiser* (Kentucky), Mar. 27, 1822; *Farmers' Register*, II, 1.

<sup>141</sup> *De Bow's Review*, IV, 434; IX, 210; *Hunt's Merchants' Magazine*, XXVIII, 239; XXXVI, 495; XXXIX, 729; *Western Journal and Civilian*, IV, 266; *Louisville Public Advertiser* (Kentucky), Mar. 27, 1822.

<sup>142</sup> United States, Dept. Treas., Bur. of Statistics, *Tables in Regard to Sugar and Molasses*, 664, Table 26.

<sup>143</sup> *Southern Agriculturist*, IV, 162; *De Bow's Review*, V, 139; Silliman, *Manual on the Cultivation of the Sugar Cane, etc.*, 11.

<sup>144</sup> *Niles' Register*, VI, 200; *Hunt's Merchants' Magazine*, XXXVIII, 512; *De Bow's Review*, II, 323; V, 148-150.

field rotation systems were commonly employed. Under the first system about two thirds of the arable land was in cane, one half newly-planted and the other first-year ratoon. The remaining third was in corn and peas, the latter afterwards plowed under. Under the four-field system three fourths was planted in cane for three years, the second-year ratoon being employed for planting. The remaining fourth was devoted to corn and peas.<sup>145</sup>

The methods of producing sugar-cane developed in Louisiana were as superior to the methods employed in the colonial industry in the West Indies as the manufacturing technique of the steam engines and the vacuum process was superior to the old ox mills and open kettles. This progress was stimulated by the necessity of overcoming severe climatic handicaps.<sup>146</sup> Instead of the laborious digging of holes for planting, the ridge husbandry prevailed in Louisiana, the ridges being thrown up by the plow. Since deep plowing was widely practiced, teams of six horses or mules were frequently employed. In the earlier years trenches for planting were placed close together, at distances varying from  $2\frac{1}{2}$  to 4 feet. With the progress of experience a greater interval was found desirable. The plant cane was cut in convenient lengths and placed lengthwise in the drill. Stalks were sometimes laid in two, or even in three, parallel lengths according to the width of the interval between the furrows. The seed cane was covered by the harrow or with hoes. In South Carolina and Georgia the hoe was generally used for cultivation, as for other crops, but in Louisiana the plow and cultivator were employed, supplemented by the hoe for close cultivation. From 4 to 6 workings were required, and in the last, or "lay-by," working the dirt was thrown to the crop to the depth of several inches.

Shortly before the coming of the first frost (about the twentieth of October), harvesting was begun, the seed cane having been previously cut. Each hand was provided with a strong knife about 18 inches long and 2 inches wide. With this he first cut the tops from the cane stalks, to be employed as part of the supply of seed canes; then stripped off the leaves and cut the cane close to the ground, piling it in heaps. Various methods were employed for transporting the bulky crop to the sugar house. On the majority of plantations wagons were used. A few were provided with field railroads. On others the cane was transported on flatboats in the drainage canals. In case of severely cold weather as much of the crop as possible had to be cut and piled in windrows.

There appears to have been considerable progress in acreage per hand. In 1802 the average was said to be about 2 English acres per hand. About 1819 an estimate was made at 3 acres per hand. An account in 1822 showed  $3\frac{1}{2}$  acres, and about 1827 reports from several plantations indicated about  $3\frac{1}{3}$  acres.<sup>147</sup>

<sup>145</sup> United States, Patent Office, *Annual Report*, 1855, *Agriculture*, 275; *Southern Agriculturist*, IV, 258, 261; *De Bow's Review*, IV, 232; V, 138; VIII, 38; *Hunt's Merchants' Magazine*, XXXVIII, 512.

<sup>146</sup> The account of the technique of cane cultivation is based on the following sources: *Southern Agriculturist*, I, 180, 527; II, 57; III, 225; IV, 162, 258-260; *American Agriculturist*, III, 204; United States, Patent Office, *Annual Report*, 1845, p. 910; *De Bow's Review*, II, 323-331; V, 139-149; *Hunt's Merchants' Magazine*, XXXVIII, 512; *American Farmer*, 1 series, XV (1833-4), p. 18; *Farmer and Gardener*, II, 404; Silliman, *Manual on the Cultivation of the Sugar Cane*, etc., 10-15.

<sup>147</sup> Berquin-Duvallon, *Travels in Louisiana and the Floridas* (Davis), 129; Warden, *Account of the, United States*, II, 541; *Louisville Public Advertiser* (Kentucky), Mar, 27, 1822; *Niles' Register*, XXXII 101; cf. *ibid.*, 241.

During the later years of the period it was possible under favorable conditions for a field hand to cultivate and harvest 5 acres, including the acreage in ratoon, besides the 2 acres or less of corn and peas in the rotation system, an amount considerably less than enough to support the laborers and large number of draft animals employed. Many planters found it possible to cultivate only 4 acres of cane to the hand.<sup>148</sup> The increase in acreage was partly the result of improved mechanical aids to plowing and cultivation, and partly of the tendency to concentrate more largely on sugar and to purchase a larger proportion of the food.

Sugar-cane was exceedingly variable in yield, for the crop was subject to numerous vicissitudes. For instance, the crop of 1857 was nearly destroyed by severe cold. For several years the crops had been suffering from a number of diseases and from the borer worm, causing many planters to believe the industry was rapidly deteriorating. The cold weather of 1856-57, however, reduced notably the prevalence of disease and of insect pests.<sup>149</sup> It was customary to reckon a hogshead of 1,000 pounds a normal yield. There were instances of 2,000 and even 3,000 pounds, but it is likely that the average yield was more nearly 800 pounds.<sup>150</sup> Yields were apparently lower in the pre-Civil War period than in more recent years. As a result of the introduction of better varieties and progress in cultivation and in processes of extracting sugar, the average yield from 1914 to 1925 inclusive was 2,878 pounds.<sup>151</sup> In the ante bellum period, it was reckoned that about 600 pounds of molasses would be made for each thousand pounds of sugar, besides nearly 100 pounds of cistern bottoms.<sup>152</sup>

Sugar was commonly marketed through factors who sold on commission, but a good deal was sold direct on the plantations to buyers from cities in the Mississippi valley. This was particularly the case with plantations along the river above New Orleans, on the Lafourche, and on Red River. In the Teche country shipments were made on large schooners direct to Atlantic ports.<sup>153</sup>

<sup>148</sup> *Southern Agriculturist*, I, 554; II, 59; IV, 164, 261; *Farmer and Gardener*, II, 404; *Dollar Farmer*, II, 185.

<sup>149</sup> *Louisiana Courier* (New Orleans), Jan. 28, 1857.

<sup>150</sup> *Farmer and Gardener*, II, 404; Warden, *Account of the United States*, II, 539-541; *Niles' Register*, XXXII, 101, 241; *Southern Agriculturist*, IV, 164.

<sup>151</sup> Calculated from statistics in United States, Dept. Agric., *Yearbook*, 1926, p. 1005.

<sup>152</sup> Leon, *On Sugar Cultivation in Louisiana, Cuba, etc.*, Pt. I, 2, 72.

<sup>153</sup> United States, Dept. Treas., Bur. of Statistics, *Tables in Regard to Sugar and Molasses*, 667.

## CHAPTER XXXII

### THE TOBACCO INDUSTRY, 1795-1860

Growth of the Industry, 752. Geographic Expansion, 754. The Foreign Market, 760. Foreign Fiscal Impositions on American Tobacco, 762. Movement of Tobacco Prices, 765. Varieties and Market Classes, 769. Market Inspection and Market Organization, 771. Technique of Production, 774. Harvesting, Curing, and Preparation for Market, 776.

#### GROWTH OF THE INDUSTRY

In the years 1790 to 1792 inclusive exports of unmanufactured tobacco averaged 110,720 hogsheads per year. Assuming an average net weight of 1,000 pounds, it appears that the quantity exported had again reached and even surpassed somewhat the annual average of 102,000,000 pounds reported for British imports (practically all from the American Colonies) for the years 1771 to 1775 inclusive.<sup>1</sup> Between 1792 and 1840 the number of hogsheads exported never again reached the high average for 1790 to 1792, although the number reported for 1801, 1827, 1832, and 1836-1838 inclusive approached that level. (Table 47, Appendix.) With the exception of these years the number of hogsheads exported varied between 60 and 90 per cent of the average for 1790 to 1792.

Some allowance should be made for changes in the average size of the hogshead. In 1790 and for some years afterward the average weight of the hogshead was about 1,000 pounds.<sup>2</sup> About 1809 Richmond tobacco merchants wrote a ship captain who was complaining of the size of hogsheads, "We do not know of a list for sale that does not average from 1,400 to 1,600."<sup>3</sup> In 1822 it was stated that in the hogsheads prescribed by law Virginia planters generally attempted to press 1,500 pounds, "but we oftener fall below than go over it. The average is perhaps not more than 1,350 lbs." According to Tuck, Maryland and Ohio tobacco hogsheads averaged but 600 to 800 pounds,<sup>4</sup> which appears rather small. About 1835 hogsheads exported from Kentucky were reported to average about 1,300 pounds. The average weight from all sources was estimated at about 1,200 pounds.<sup>5</sup> The amount exported in pounds was believed to average about the same in 1834 and 1835 as it had averaged in the years 1790 to 1792.<sup>6</sup>

Even allowing for increase in size of hogsheads, however, exports of unmanufactured tobacco at the close of the fourth decade were scarcely larger than in

<sup>1</sup> See above, p. 214.

<sup>2</sup> *Niles' Register*, XVII, 225.

<sup>3</sup> Ellis & Allan to Moses Myers, Mar. 12, 1809, in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1806-1810).

<sup>4</sup> *Essay upon the Curing, Management, and Cultivation of Tobacco*, 41, 43; *Southern Planter*, III, 49.

<sup>5</sup> This appears to be an official United States Treasury estimate made at the Maryland tobacco convention of 1837, and reported in *Farmers' Register*, IV, 747-749.

<sup>6</sup> United States, *American State Papers, Commerce and Navigation*, I, 310; *idem*, Register of the Treasury, *Annual Reports on Commerce and Navigation*; De Bow, *Industrial Resources*, III, 349. In G. K. Holmes' *Tobacco Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, Circular 33, p. 5), the annual export figures for the entire period from 1790 to 1861 inclusive are converted to pounds by assuming the hogshead to weigh 1,000 pounds.

the years 1790 to 1792 inclusive, or even than just before the Revolutionary War; but after 1839 there was a notable increase, which had begun on a smaller scale as a result of the price stimulus of the good times just preceding the panic of 1837. For the twenty-one years from 1840 to 1860 inclusive exports averaged nearly 60 per cent above those of 1790 to 1792, and just before the Civil War there was a distinct tendency toward further enlargement. Making allowance for differences in size of hogsheads and including exports of snuff and manufactured tobacco, average annual exports from 1857 to 1860 inclusive were more than double the average for 1790 to 1792.

Domestic consumption increased much more rapidly than exports. The exports of the fiscal year ending July 1, 1860, averaged at 1,200 pounds per hogshead, plus the reported exports of manufactured tobacco, were approximately half the production reported in the census for 1859, indicating that the remaining one half was consumed at home. By the same methods of calculation the presumptive consumption in the years following the three census years 1839, 1849, and 1859 averaged a little over 35 per cent of reported production, or 4.23 pounds per capita.<sup>7</sup> Assuming the same per capita consumption for 1790 to 1792, the average annual consumption of that period was about 15 per cent of total production.<sup>8</sup> On this basis the reported production for 1859 was nearly 3.4 times the estimated average annual production of the period 1790-1792; and the average reported production for the three census years 1839, 1849, and 1859 was about 2.2 times that of the period 1790-1792.

The expansion of domestic manufacturing absorbed an increasing proportion of American production. A Virginia merchant estimated that American consumption about 1809 annually required 10,000 to 12,000 hogsheads, and by 1817, 15,000 hogsheads.<sup>9</sup> In the early decades of the nineteenth century there was an extensive development of tobacco manufacturing in Virginia, particularly of chewing tobacco. In 1810 Tench Coxe estimated the State's output of snuff and manufactured tobacco at 2,726,713 pounds.<sup>10</sup>

The increase in domestic manufacturing appears to have developed partly as a means of using the large quantities of tobacco rejected by the inspectors, which under the law could not be exported.<sup>11</sup> About the same period Virginia developed a large business in stemming and reprizing tobacco, apparently as a means of passing tobacco badly cured or injured by water or other cause. By 1818 Kentucky tobacco, much of which was of low quality, was being brought around to Virginia for stemming.<sup>12</sup> For the two years ending October 1, 1835 and 1836, inspections

<sup>7</sup> It is probable that this underestimates the percentage for domestic consumption, for the exports of 1850 were abnormally large, and it is possible that production reported for 1839 was an understatement.

<sup>8</sup> This assumes a mean population of 4,000,000. See *United States Census*, 1790.

<sup>9</sup> Ellis & Allan to John Heathcote & Co., Nov. 3, 1809; Charles Ellis to John Allan, July 21, 1817, both in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vols. 1806-1810 & 1815-1818).

<sup>10</sup> *Tabular Statements of American Manufactures*, Pt. I, 29; Pt. II, 108.

<sup>11</sup> John Allan and Charles Ellis to William Taylor, Mar. 19, 1830, in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1823-1841). See also below, p. 771.

<sup>12</sup> Charles Ellis to John Allan, Dec. 10, 1816 (Vol. 1815-1818); Charles Ellis to Allan & Ellis, Jan. 1, 1818; Charles Ellis to John Allan, Aug. 26, 1818; Ellis & Allan to John Tumis, Feb. 27, 1819; Ellis & Allan to Henry Flood & Co., Aug. 7, 1820; all in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1817-1823).

of tobacco in Virginia averaged 46,482 hogsheads and exports about 28,000, leaving over 18,000 hogsheads not exported. Probably a good deal of noninspected tobacco was manufactured or otherwise consumed, especially in the numerous small local factories distributed throughout the tobacco producing region.<sup>13</sup> Lynchburg was the largest manufacturing center, containing in 1843 about thirty tobacco factories and stemmeries. Petersburg and Richmond also were important centers of manufacture. In 1848-49 it was estimated that about 30,000 hogsheads of tobacco were manufactured in Virginia.<sup>14</sup> About 1853 practically all the inspected crop of North Carolina was inspected in Virginia and most of it manufactured there, but some 7,000 to 8,000 hogsheads were manufactured in North Carolina from "loose tobacco," and brought to the Virginia market. Some 35,000 to 40,000 boxes, made chiefly from uninspected tobacco, were manufactured in the Roanoke region and brought to the Petersburg market.<sup>15</sup> The industry early developed at Clarksville, Tennessee, and by 1860 there were sixteen factories in operation, using more than 2,000,000 pounds of tobacco.<sup>16</sup> In the last two decades St. Louis also became an important tobacco manufacturing city. In the year ending June 30, 1864, the first year for which national statistics are available, manufactured tobacco, including cigars, was equivalent to about 91,542,055 pounds of leaf tobacco.<sup>17</sup> This was probably from a third to a fourth of the product of leaf tobacco.

#### GEOGRAPHIC EXPANSION

The pioneers west of the Appalachians carried with them the tobacco industry. As early as 1783 the Virginia General Assembly provided for tobacco inspection on the "western waters," and between 1787 and 1790 petitions for additional warehouses were sent to Williamsburg.<sup>18</sup> Within little more than a decade after the first settlement of Kentucky the enterprising Wilkinson had opened a market at New Orleans.<sup>19</sup> In July, 1789, he was advertising for Kentucky tobacco. In spite of heavy charges for freight and commission, the outlet which he afforded was a great boon to the pioneer growers.<sup>20</sup> Fortunately, in 1795 Spain recognized the free navigation of the river, giving Americans a right of deposit at New Orleans, and although the right was withdrawn for a short time in 1802, it was soon restored.<sup>21</sup> During this same period tobacco growing was developing in middle Tennessee. In 1785 an inspection warehouse was established at Nash-

<sup>13</sup> *Farmers' Register*, I, 213; cf. Arnold, *History of the Tobacco Industry in Virginia*, 58.

<sup>14</sup> Pollock, *Sketch Book of Lynchburg, Virginia*, 59; cf. Christian, *Lynchburg and Its People*, 103; Lynchburg, City Council, *Resources and Advantages of Lynchburg, Virginia*, 5; *North Carolina Farmer*, IV, 149.

<sup>15</sup> *De Bow's Review*, XIV, 175.

<sup>16</sup> Killebrew, *Report on the Culture and Curing of Tobacco*, 168.

<sup>17</sup> Burke, Edw., *Tobacco Manufactures*, 19.

<sup>18</sup> Robertson, J. R., "Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia," in *Filson Club Publications*, No. 27, pp. 98, 99 n., 102, 105, 113, 120, 128-129, 132, 139, 152, 171, 175; Verhoeff, *Kentucky River Navigation*, 70-74.

<sup>19</sup> See Chap. XXXVI.

<sup>20</sup> *Kentucky Gazette* (Lexington), June 27, 1789; Verhoeff, *Kentucky River Navigation*, 55-62; cf. Roosevelt, *Winning of the West*, III, 125-127.

<sup>21</sup> Channing, *Jeffersonian System*, 56, 63-67. For effect on trade, cf. Claiborne, W. C. C., *Official Letter Books*, I, 207-211, 221, 233-236, 267.



ville, and in 1789 at Clarksville and other points. By 1816 the tobacco production of that part of Tennessee west of the mountains was estimated at 10,000 hogsheads.<sup>22</sup> For a time Robertson and Montgomery counties comprised the principal tobacco region of the State. By the early years of the nineteenth century the industry had become well developed in the Clarksville-Hopkinsville region of southern Kentucky and in the central Ohio River counties such as Breckinridge and Hardin, but the great development on the lower Ohio came mainly after 1830.<sup>23</sup>

The progress of the trans-Allegheny tobacco industry is largely reflected in the earlier part of the period by the receipts at New Orleans. About the beginning of the century receipts from American territory amounted to approximately 2,400 hogsheads. In 1814 exports were 6,210 hogsheads, but this small showing was doubtless due to the war, for in the year ending September 30, 1817, exports from New Orleans consisted of 28,000 hogsheads, besides 10,000 "carottes" of the old French product and a small quantity manufactured. The following year New Orleans exports amounted to 24,000 hogsheads.<sup>24</sup> Due to generally unfavorable prices between 1819 and 1836 the progress of the western industry was not rapid, although as late as 1821 it was considered "unquestionably the best crop the Farmers of Kentucky can at this time raise."<sup>25</sup> During this long period it is said that many Kentucky tobacco fields, especially in the Blue Grass, were converted into pastures. A similar tendency was noted in middle Tennessee, although some planters had recently substituted tobacco for the more uncertain cotton crop.<sup>26</sup> Receipts of tobacco at New Orleans in 1831-32 to 1833-34 inclusive averaged but 25,500 hogsheads,<sup>27</sup> less than in 1817. The years of high prices preceding 1837 provided a stimulus that began to be reflected in receipts at New Orleans in 1839-40, reaching a maximum in 1842-43. In 1841 an agricultural editor estimated that the Tennessee crop would be four times what it had ever been before.<sup>28</sup> Average annual exports from New Orleans for 1842 to 1846 inclusive averaged 73,984 hogsheads, approximately double the average for 1836 to 1840 inclusive.<sup>29</sup>

The period of high prices culminating in 1837 resulted in the addition of Missouri to the list of important tobacco States, the census of 1840 showing a product of about 9,000,000 pounds. For 1841 the State's crop was estimated at 15,000 hogsheads, averaging 1,300 pounds.<sup>30</sup>

About 1826 the farmers of eastern Ohio began to turn their attention to the raising of bright, or yellow, tobacco. There was a great demand for this variety,

<sup>22</sup> *North Carolina State Records*, XXIV, 770-773; Ramsey, *Annals of Tennessee*, 506; *Tennessee Laws* (Scott), II, 610; *Niles' Register*, XIII, 176.

<sup>23</sup> Killebrew, *Report on the Culture and Curing of Tobacco*, 43.

<sup>24</sup> Rightor, *Standard History of New Orleans*, 547, 550, 553; *De Bow's Review*, VII, 416; *Niles' Register*, XV, 268.

<sup>25</sup> *Argus of Western America* (Frankfort, Ky.), Feb. 15, 1821.

<sup>26</sup> Verhoeff, *Kentucky River Navigation*, 101, n. B; *Agriculturist*, II, 246.

<sup>27</sup> *Farmers' Register*, II, 391.

<sup>28</sup> *Agriculturist*, II, 42.

<sup>29</sup> *De Bow's Review*, II, 47, 265.

<sup>30</sup> Cf. *Niles' Register*, LXII, 279; United States, *Statistical View: A Compendium of the Seventh Census*, 174; *Dollar Farmer*, I, 52.

a considerable part of which was shipped across the mountains to Baltimore or by way of the Erie Canal to New York. The Ohio tobacco competed directly with the bright yellow, or Kite's-foot, tobacco produced in Maryland, nearly all of which was sold in Dutch and German markets for smoking tobacco or snuff. The Ohio variety, produced on virgin land, was said to be even superior to that of Maryland, and some of the better grades brought as high as 40 cents per pound.

The last two decades before the Civil War witnessed an extensive diversion of Western tobacco to ports other than New Orleans. As late as 1829 only 1,350 hogsheads reached Baltimore from the Ohio.<sup>31</sup> In 1840 inspections of Western tobacco at Baltimore included only 4,096 hogsheads from Ohio and 382 from Kentucky.<sup>32</sup> During the next decade improvement of transport facilities resulted in a notable diversion of Western tobacco to Baltimore. For the years 1847-1857 inclusive tobacco received at Baltimore from the Ohio River region averaged 13,507 hogsheads, increasing to an average of 20,000 in the three years 1858-1860.<sup>33</sup> Railway building in the fifties also resulted in shipment of some of the Western tobacco to Mobile, which reported receipts of 16,912 "boxes" in 1858 and 10,565 in 1859.<sup>34</sup> The diversion of so large an amount of Western tobacco to other ports accounts in part for the comparatively small increase in New Orleans exports during the last decade and a half of the ante bellum period. As compared with average exports of 73,984 hogsheads in the five-year period 1842 to 1846 inclusive, the average for the remaining fourteen years was only 63,940 in spite of the marked increase in the last three years, when the annual average was 78,293 hogsheads. In part, also, the decrease of New Orleans exports after 1846 reflected the depression of the fifth decade and the strong tendency to abandon tobacco in favor of hemp, livestock, and grain.<sup>35</sup>

In 1828-29 Cuban tobacco seed was introduced in Florida, followed by many attempts to produce tobacco for fillers equal in quality to the Cuban. These experiments were not successful, but the Florida planters succeeded in producing tobacco for cigar wrappers which sold for 20 to 25 cents a pound in the New York market. About 1845 depression in the cotton industry resulted in a considerable expansion in the Florida tobacco industry, further stimulated by prices of 40 to 80 cents per pound. The industry became overexpanded, and the price fell to 12½ cents. The average annual product in Florida came to be stabilized at about 600,000 pounds, mostly from Gadsden County, due to limitation of market requirements. About 1845 there were experiments with Cuban seed in Georgia and Alabama.<sup>36</sup>

<sup>31</sup> Niles, *Agriculture of the United States*, 5; Warden, *Account of the United States*, II, 159; *American Farmer*, 1 series (1825-30), VII, 348; VIII, 336; IX, 304; XI, 283.

<sup>32</sup> *Niles' Register*, LVIII, 167.

<sup>33</sup> Annual figures for 1845-1854 inclusive, from *De Bow's Review*, XVIII, 644; for remaining years, from Killebrew, *Report on the Culture and Curing of Tobacco*, 142.

<sup>34</sup> *De Bow's Review*, XXVIII, 222.

<sup>35</sup> *Niles' Register*, LV, 38; *De Bow's Review*, II, 47, 49; XI, 495; XXIII, 373; XXIX, 522; United States, Patent Office, *Annual Reports*, 1845, pp. 268-271; 1851, *Agriculture*, 449; *American Farmer*, 1 series (1825-9), VII, 338; IX, 147; X, 49.

<sup>36</sup> United States, Patent Office, *Annual Reports*, 1845, p. 268; 1849, *Agriculture*, 147; *Niles' Register*, LXII, 279; LXIX, 24, 70, 147; *De Bow's Review*, VIII, 157; XVIII, 36-39; XXV, 608; *Dollar Farmer*, III, 134.

Although tobacco production developed in upper Georgia and South Carolina just after the Revolutionary War had been largely displaced by cotton,<sup>37</sup> Savannah exports amounted to 1,500 hogsheads as late as 1818, but by 1826 to only 170 hogsheads.<sup>38</sup>

While the industry on the lower Mississippi was early abandoned in favor of cotton, the old French industry lingered along the upper Red river, where there continued to be produced a small quantity of dark and aromatic tobacco known as Perique, useful as an ingredient of snuff and smoking mixtures. This product came to market in the old French form of "carottes," or tightly bound bundles. In 1842 the annual production was estimated at about 300,000 pounds.<sup>39</sup>

About 1852 or 1853 two brothers, Eli and Elisha Slade, of Caswell County, North Carolina, grew—apparently by accident—a new variety of yellow tobacco especially adapted to meet the growing demand for light, dry cigarette and smoking tobacco. It was believed that the qualities of this type were largely due to the light sandy soils of that region. At first methods of curing were crude, but in time the process of charcoal curing was introduced. The high prices received stimulated rapid development, and by 1860 production of bright leaf had become the leading industry of southern Virginia and northern North Carolina, where lands hitherto of little value rose to \$50 an acre.<sup>40</sup>

The production of tobacco by States in the closing decades of the ante bellum period was as follows:

TABLE 30.—*Production of tobacco in the United States and in important tobacco producing States*<sup>1</sup>

	1839	1849	1859
Total United States	219,163,319	199,752,655	434,209,461
Kentucky.....	53,436,909	55,501,196	108,126,840
Maryland.....	24,816,012	21,407,497	38,410,965
Missouri.....	9,067,913	17,113,784	25,086,196
North Carolina.....	16,772,359	11,984,786	32,853,250
Ohio.....	5,942,275	10,454,449	25,092,581
Tennessee.....	29,550,432	20,148,932	43,448,097
Virginia.....	75,347,106	56,803,227	123,968,312

<sup>1</sup> *United States Census, 1860, Agriculture, 185, 189; idem, Statistical View: A Compendium of the Seventh Census, 174.*

In 1839 the product of Virginia was but little greater than in the pre-Revolutionary period, while the product of Maryland was actually less. The effect of the low prices prevailing during the fifth decade is suggested by a decrease in production. In the following decade a great revival occurred, and production of the principal tobacco producing States appears to have greatly increased.<sup>41</sup> There are indications, however, that a considerable error exists in the statistics, either for 1849

<sup>37</sup> See above, p. 605.

<sup>38</sup> *Niles' Register*, XIV, 208; XIX, 192; XXXI, 131.

<sup>39</sup> Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), p. 134; *Niles' Register*, LXII, 279. See also above, pp. 71-73. Concerning the origin of the name "Perique," see Penn, *Soverane Herb*, 113.

<sup>40</sup> Killebrew, *Report on the Culture and Curing of Tobacco*, 110, 117; Paul, *History of Durham*, 161, 166, 219. For description of methods of curing, see Billings, *Tobacco*, 453.

<sup>41</sup> See below, p. 765.

or for 1859, with the probability that the increase of production shown between 1849 and 1859 is excessive.<sup>42</sup>

The production of tobacco for market was concentrated in certain well-defined regions. (See Fig. 9.) In Maryland tobacco was produced on the Western Shore, in the counties bordering Chesapeake Bay. By 1840 little tobacco was grown in the Virginia Tidewater. The industry was concentrated largely in middle and southern Virginia, for by 1834 little was grown in the Valley,<sup>43</sup> although later there was some revival of the industry in that region. By 1860 Pittsylvania and the adjacent counties comprised the district of greatest concentration, including also the counties across the line in North Carolina engaged in the production of yellow tobacco. The industry had practically disappeared from the old colonial tobacco area in the neighborhood of Albemarle Sound. Another important region was the Clarksville-Hopkinsville district in southern Kentucky and northern Tennessee, which produced the dark, heavy type used for export to European markets. Other regions were the Paducah district, in western Kentucky; the lower and upper Green River districts, which Adam Beatty declared to be the best adapted land in Kentucky to tobacco production;<sup>44</sup> the upper Cumberland; and the valleys of the Missouri and Mississippi rivers in Missouri.

The maps show a great shrinkage of acreage from 1839 to 1849 in the Atlantic States; withdrawal of tobacco production from the southern part of middle Tennessee, and a general decrease in middle Tennessee as a whole; great reduction in Weakley and Henry counties, but some extension into the newly developed part of west Tennessee; a reduction in the lower Green River region around Henderson, but an increase in the Hopkinsville region of southern Kentucky, in Missouri, and in southeastern Ohio. During the following decade all areas showed an increase. The industry was making some headway in piedmont counties of Maryland and had advanced westward in Virginia. In 1847 the quantity of tobacco reaching Lynchburg by way of the James River and Kanawha Canal from west of the Blue Ridge was 429 tons. The Baltimore and Ohio Railroad, completed only to Cumberland, hauled 5,582 hogsheads.<sup>45</sup> By 1860 Albemarle, Rockbridge, and Augusta counties, Virginia, were considered a successful tobacco growing section.<sup>46</sup> During the decade there had been a large increase in southwestern Kentucky and northwestern Tennessee, as well as in the older producing areas of western Kentucky, and across the Ohio river in the southern part of Ohio, Indiana, and Illinois. In Missouri the industry was pushing into the northeastern counties.

<sup>42</sup> Subtracting the sum of exports of leaf tobacco and the exports of manufactured tobacco from the sum of the total product of the United States plus the imports of leaf and of manufactured tobacco, leaves a remainder of 252,955,731 pounds, the amount retained and received for consumption. This amount is nearly four times the annual average retained and received for consumption in the ten years for which statistics are available just preceding 1859. See Holmes, G. K., *Tobacco Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, *Circular* 33), p. 9. This method of estimating domestic consumption is subject to a considerable margin of error, especially for a single year, due to the fact that the crop of one year is partly marketed the next year, to variations in carry-over, and to loss in weight from shrinkage and stemming. The results are therefore only rough approximations.

<sup>43</sup> *Farmers' Register*, I, 4.

<sup>44</sup> *Essays on Practical Agriculture*, 128.

<sup>45</sup> Lynchburg and Tennessee Railroad Company, *First Annual Report*, 33, 35.

<sup>46</sup> *Southern Planter*, XX, 439.

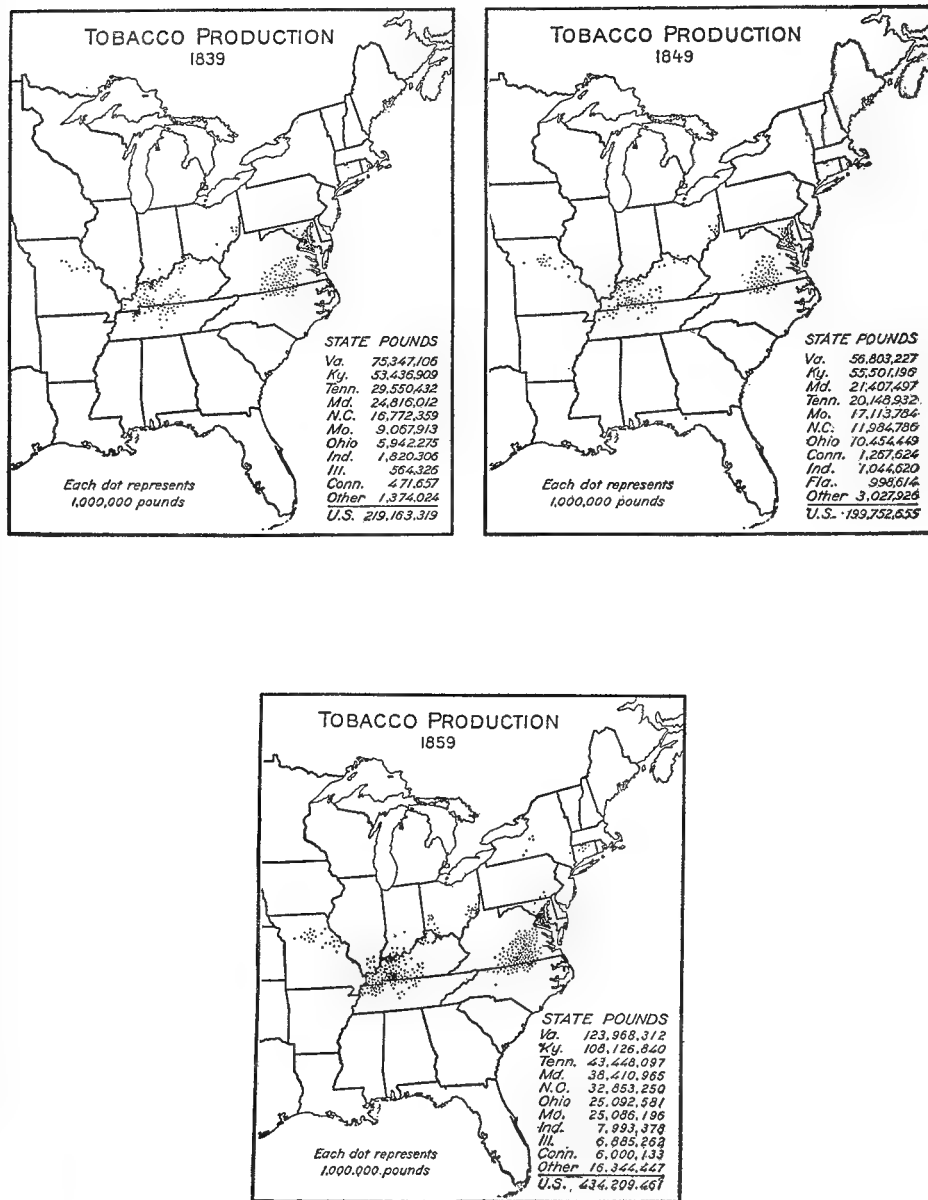


FIG. 9. Geographic expansion of tobacco production, 1839 to 1859, as indicated by decennial censuses of production by counties. The maps were prepared in the Division of Historical and Statistical Research, Bureau of Agricultural Economics.

## THE FOREIGN MARKET

The failure of American tobacco exports to increase from the close of the eighteenth century to the close of the fourth decade of the nineteenth is attributable largely to conditions affecting European markets. Thus, in the five-year period 1790 to 1794 inclusive the average annual amount of tobacco entered for consumption in the United Kingdom was a little over 13,000,000 pounds. In the next five-year period it averaged nearly 18,000,000 pounds, but from this time until about 1825 there was little change. It is possible that increased smuggling was partly accountable, for by the middle of the sixth decade it was estimated that half the tobacco consumed in the United Kingdom was introduced by smugglers.<sup>47</sup> In 1826 a slow increase in official imports began to be manifested, but by the five-year period 1840 to 1844 the average was only 23,000,000 pounds. By 1860 it had reached 35,000,000, an increase of about 50 per cent in the past fifteen years.<sup>48</sup> The Napoleonic Wars played havoc with the British reëxport trade, and in the remainder of the period it failed to recover its former importance. By the three years 1802 to 1804 inclusive reëxports had decreased to less than 50 per cent of imports,<sup>49</sup> as compared with about 90 per cent before the Revolutionary War. In the years 1830 to 1842 inclusive reëxports amounted to less than 40 per cent of the total imports of the United Kingdom, and by 1860 had become inconsiderable.<sup>50</sup>

As late as 1792 our tobacco exports to France, including snuff and manufactured tobacco, amounted to nearly 30,000 hogsheads.<sup>51</sup> The Napoleonic Wars nearly annihilated the trade. From 1800 to 1816 exports of American tobacco to France amounted to no more than a few hundred hogsheads in each of eight years, and in the remaining years, though more substantial, ranged from 2,876 to 16,216.<sup>52</sup> In the ten years 1821–1830 inclusive exports to France averaged 5,857 hogsheads. Beginning with 1835 they began to increase, reaching a maximum of 15,640 hogsheads in 1840 and averaging 8,101 hogsheads for the decade, and 15,587 for the following decade. The average for the decade ending

<sup>47</sup> Great Britain, *Customs Tariffs of the United Kingdom, etc. (Accounts and Papers* [vol. 34], 1898, vol. 85), p. 196; United States, *Report on Commercial Relations (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I)*, 34.

<sup>48</sup> The data are derived from a table showing annual quantities entered for consumption in each year beginning with 1790. Great Britain, *Customs Tariffs of the United Kingdom, etc. (Accounts and Papers* [vol. 34], 1898, vol. 85), p. 196.

<sup>49</sup> See below, p. 762. Estimated by assuming weight of hogsheads at 1,000 pounds, and subtracting data on entries for consumption from total exports, as reported in United States, *American State Papers, Commerce and Navigation*, I, 645.

<sup>50</sup> Total American tobacco exported to the United Kingdom in various years, given in United States, *Report on Commercial Relations (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I)*, 36. The quantity is given in hogsheads. This was multiplied by 1,200 to reduce hogsheads to pounds. Total "raw" tobacco entered in the United Kingdom for home consumption in various years is given in terms of pounds, in Great Britain, *Customs Tariffs of the United Kingdom, etc. (Accounts and Papers* [vol. 34], 1898, vol. 85), p. 196. For the five years 1851 to 1855 inclusive the quantity of American tobacco exported to the United Kingdom multiplied by 1,200 is less than the reported number of pounds entered in the United Kingdom for home consumption. This is possibly accounted for by small quantities imported from other countries; possibly also by the fact that the 1,200 pounds assumed is too small, since most of the American tobacco consumed in the United Kingdom came from Virginia and Kentucky.

<sup>51</sup> United States, *American State Papers, Commerce and Navigation*, I, 241.

<sup>52</sup> *Idem*, *Report on Commercial Relations (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I)*, 124.

in 1860 was 21,590, but the trade was exceedingly fluctuating, advancing to over 40,000 hogsheads in 1855 and then falling suddenly to only about 12,000 in 1857.<sup>53</sup>

Germany, the Low Countries, and the Baltic Provinces constituted a more important market than either France or England, and, unlike the last named countries, a more important market than in the colonial period. Furthermore, much of the tobacco which formerly went to the European Continent by way of England was now shipped direct. Most of the exports reaching Germany went first to the Hanse towns, especially Bremen.<sup>54</sup> In the decade 1821 to 1830 official exports to Germany averaged 13,952 hogsheads per year. In the next three decades they increased threefold.<sup>55</sup> The greater part was classed as "Maryland" tobacco, the trade name on the Continent for the yellow tobacco from Maryland and Ohio.<sup>56</sup> In the period 1845-1854 so-called Maryland tobacco comprised about two thirds of Bremen imports, and about 29 per cent was "Kentucky" tobacco, the trade term in European markets for tobacco produced in Kentucky, Tennessee, and other States of the Mississippi valley. About 6 per cent came from Virginia.<sup>57</sup>

In the decade 1821-1830 direct exports of leaf tobacco to Holland averaged 21,868 hogsheads per year, and in the following decade 20,503. There was but little increase during the remaining decades of the period.<sup>58</sup> About 1855 Maryland contributed nearly two thirds of the exports to Holland. "Kentucky" tobacco comprised about a fifth, and the remainder was attributed to Virginia. About two thirds of the American tobacco imported by Holland was reexported to Germany and Belgium.<sup>59</sup>

Small quantities of American tobacco were shipped to various other European countries either direct or by way of England or of Bremen and other Baltic ports. The consumption of American tobacco in the various countries about 1840 was estimated as follows:<sup>60</sup>

<sup>53</sup> Compiled from *idem*, *American State Papers, Commerce and Navigation*, II, 567, 608; *idem*, Register of the Treasury, *Annual Reports on Commerce and Navigation*, 1822-1860. The figures are for leaf and do not include the small quantities of manufactured tobacco. For French statistics showing value by years 1811 to 1852 inclusive, see *idem*, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 129.

<sup>54</sup> Cf. *Niles' Register*, LX, 210.

<sup>55</sup> Based on statistics in *idem*, *American State Papers, Commerce and Navigation*, II, 567, 698; *idem*, Register of the Treasury, *Annual Reports on Commerce and Navigation*, 1823-1830. The figures were compiled by totalling the statistics listed under the following headings: "Hanse towns," "Hamburg, Bremen, and other Hanse towns," "Hamburg," "Bremen," "German ports," "Germany," "Prussia," etc. In the last few years of the period the statistics include a considerable number of "cases" of leaf tobacco in addition to the hogshead tobacco. By 1860 the number of cases amounted to 15,035. There were also some thousands of "bales" of tobacco. See Appendix, Table 47, note 3.

<sup>56</sup> *American Farmer*, 1 series, IX (1827-8), pp. 88, 147.

<sup>57</sup> See table of Bremen imports, United States, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 394.

<sup>58</sup> Compiled from United States, *American State Papers, Commerce and Navigation*, II, 567, 698; *idem*, Register of the Treasury, *Annual Reports on Commerce and Navigation*, 1822-1860.

<sup>59</sup> *Idem*, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 269.

<sup>60</sup> From the report of Joshua Dodge, special agent sent to Europe by the President to study the tobacco trade, reprinted in *Niles' Register*, LXI, 371.

Countries	Tobacco	Countries	Tobacco
	<i>hogsheads</i>		<i>hogsheads</i>
Russia.....	358	Portugal.....	363
Holland.....	3,300	Italy.....	2,455
Belgium.....	4,000	Austria.....	4,000
Great Britain.....	18,000	Germany.....	38,000
France.....	10,000	Sweden and Norway.....	1,800
Spain.....	3,000	Denmark.....	1,100
		Total.....	86,396

Small quantities were also shipped to the West Indies and other parts of the world.

The interruptions to trade due to the Embargo and Non-Intercourse Acts, and the various restrictions and interferences during the Napoleonic Wars and the War of 1812 stimulated to a marked degree production of tobacco in Continental Europe. Once developed, the industry was maintained, and seriously limited the market for the American product. By 1840 the total production of Europe was estimated at 136,680,000 pounds, principally in Germany, Austria, France, and Russia.<sup>61</sup> European tobacco production was stimulated and maintained by the heavy duties imposed by a number of countries on imported tobacco. Some countries, however, also restricted domestic growth in the interest of greater revenue. Thus, Great Britain continued her colonial policy of forbidding production, except in the case of Ireland from 1779 to 1831.<sup>62</sup> France and Austria restricted domestic production to certain provinces, and under the authority of the fiscal monopoly limited the acreage.

#### FOREIGN FISCAL IMPOSITIONS ON AMERICAN TOBACCO

These policies seriously restricted the European market for American tobacco. In the case of Great Britain particularly, the heavy duties of the colonial period<sup>63</sup> were as nothing to the burdens imposed in the post colonial period. The first order in council after the Treaty of 1783 placed a duty of approximately 30 cents a pound on American leaf tobacco.<sup>64</sup> In December, 1795, it was increased to 1 shilling 7 pence, and continued at that level, with fractional fluctuations, until June, 1804. The fiscal pressure of the Napoleonic struggle revealed the fact that by reason of great inelasticity in demand, tobacco would stand enormous duties without more than proportionately diminishing consumption. The British duty was gradually advanced until it reached 3 shillings 2 pence by February, 1815. In June, 1819, it was advanced to 4 shillings per pound, and so continued until July, 1825, when it was lowered to 3 shillings. It was then lowered to 2 shillings 9 pence but advanced again to 3 shillings in 1842, continuing at that level until 1863. Duties for Ireland were slightly lower than for the United Kingdom until 1811, slightly higher in 1811-1819, and thereafter the same as for England.<sup>65</sup>

<sup>61</sup> *Niles' Register*, LXI, 371; cf. Burke, Edw., *Tobacco Manufactures*, 18.

<sup>62</sup> Great Britain, *Customs Tariffs of the United Kingdom, etc. (Accounts and Papers [vol. 34], 1898, vol. 85), p. 188.*

<sup>63</sup> See above, pp. 242-246.

<sup>64</sup> United States, *Report on Commercial Relations (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 7.*

<sup>65</sup> Great Britain, *Customs Tariffs of the United Kingdom, etc. (Accounts and Papers [vol. 34], 1898, vol. 85), pp. 190-192.*



The French fiscal monopoly employed during most of the colonial period was abolished in 1791, but was restored in 1810. In the interval, however, fiscal exigencies and a desire to protect the domestic industry led the French Government to impose high duties on leaf tobacco. The duties were approximately doubled by the law of 1794, and under the Napoleonic régime were gradually advanced to 440 francs per hundred kilograms for tobacco imported in foreign vessels and 396 francs in French ships.<sup>66</sup> After the restoration of the régime the extent of the toll levied on tobacco is indicated by the fact that its profits increased from an annual average of 30,566,893 francs in the period 1812 to 1816 inclusive to 89,379,994 in the period 1848 to 1852.<sup>67</sup> About 1845 a merchant of Richmond, Virginia, had the exclusive contract to purchase for both the French and the Italian monopolies.<sup>68</sup>

About 1840 a régime system was employed also by Austria, Spain, Sardinia, the Roman States, Parma, and Mexico. Out of thirty-six countries of Europe, twenty-four had free trade in tobacco, mainly States importing small quantities. The remainder, exclusive of those having the régime system, relied largely on tobacco duties, including some of the largest importers, such as Great Britain, Holland, Belgium, the German States, Norway, and Sweden.<sup>69</sup> Holland and Belgium, being interested in manufacturing and reëxporting tobacco, imposed comparatively low duties, and likewise the countries of the Zollverein.<sup>70</sup> The Prussian tariff of 1841-1842 on leaf tobacco was about 7½ cents a pound, the Russian tariff of 1839 was 30 cents, and the Austrian (Milan) tariff of 1838 a fraction over 19 cents.<sup>71</sup>

From the time when Jefferson was ambassador to France under the Confederation, there was more or less dissatisfaction on the part of American tobacco growers with European restrictions, and occasional attempts by American representatives abroad to obtain abolition or modification.<sup>72</sup> The dissatisfaction came to a head in the last half of the fourth decade. In 1836 the tobacco producing interests secured a resolution in Congress directing the President to instruct American diplomatic representatives to negotiate for diminution of duties and other burdens on American tobacco. Appropriations were made for a number of special diplomatic agents "for the avowed purpose of representing the peculiar interests of the Planters of Tobacco."<sup>73</sup> A tobacco convention held the same year at Upper Marlborough, Maryland, proposed a general convention of growers to be held at Washington in January, 1837.<sup>74</sup> In May, 1840, a national conven-

<sup>66</sup> Gayvallet, *Le Monopole du Tabac en France*, 402-405; Hazard's Register, quoted in Niles' Register, LXII, 280.

<sup>67</sup> See table in United States, *Report on Commercial Relations* (Senate Ex. Doc., 34 Cong., 1 sess., XIX, No. 107, Pt. I), 129.

<sup>68</sup> Niles' Register, LXVIII, 64.

<sup>69</sup> Extract from the report by Joshua Dodge, reprinted in Niles' Register, LXII, 281; *New Orleans Commercial Bulletin*, Aug. 12, 1839.

<sup>70</sup> United States, *Report on Tobacco Trade* (House Doc., 26 Cong., 1 sess., VI, No. 229), p. 157; cf. *idem*, *Report of the Select Committee on the Tobacco Trade* (House Report, 25 Cong., 3 sess., II, No. 310), p. 3.

<sup>71</sup> Tariff tables, reprinted in Niles' Register, LXXII, 104.

<sup>72</sup> See historical statement by the Committee on Resolutions of the Washington tobacco convention, Dec. 15, 1840, in Niles' Register, LIX, 258; also *ibid.*, LVIII, 371; United States, *Petition of Tobacco Planters of Daviess County, Kentucky* (House Doc., 26 Cong., 2 sess., II, No. 25).

<sup>73</sup> Farmer and Gardener, IV, 22. See also, United States, *Resolutions of the General Assembly of Maryland relative to Foreign Duty on Tobacco* (Senate Doc., 24 Cong., 2 sess., II, No. 132).

<sup>74</sup> Farmer and Gardener, III, 155.

tion met at Washington, attended by delegates from Maryland, Virginia, and Kentucky. A second convention, attended by a large number of delegates from various tobacco producing States, was held at the same city the following December.<sup>75</sup> In the same month the House of Representatives appointed a special committee on the tobacco trade. The movement also found an echo in a number of local conventions which memorialized Congress, seconded by legislative resolutions in certain States.<sup>76</sup>

The agitation called attention to the enormous burdens on American tobacco in European markets. It was alleged, for instance, that Europe obtained a revenue of \$30,000,000 from American tobacco with an export value of no more than \$7,000,000.<sup>77</sup> It was argued that these burdens had tended to curtail European consumption, encourage production in Europe, restrict the area in American tobacco, and reduce the profitableness of the industry. The tobacco interests called loudly for the negotiation of commercial treaties providing for a greater degree of reciprocity in American trade relationships. It was pointed out that while Great Britain levied a duty equivalent to 800 per cent on American tobacco, British products entered American ports by paying an average duty of only 12½ per cent. The French regime, it was claimed, yielded a revenue amounting to about 60 per cent of the entire proceeds from duties on imports, while American duties on French brandies, wines, and silks were very low. It was urged that in case negotiations should fail, resort be had to countervailing duties.<sup>78</sup>

The agitation resulted in but little change, in spite of a great deal of diplomatic activity.<sup>79</sup> In the principal consuming countries of Europe tobacco was so nearly the keystone of the fiscal arch that European chancelleries found it impracticable to make a radical change in policy.<sup>80</sup> In England, for instance, the majority reports of the special Commissions of 1830 and 1840 on the tobacco trade expressed a belief that a marked lowering of duties would so reduce smuggling and stimulate consumption that the revenue would actually be increased;<sup>81</sup> but English fiscal authorities, long experienced in the ability of tobacco to bear heavy impositions, were not to be moved. The Washington tobacco convention of December, 1840, was compelled to admit that diplomacy had accomplished little beyond a few minor concessions in unimportant countries, and that the only hope lay in retaliatory measures.<sup>82</sup>

<sup>75</sup> *Niles' Register*, LVIII, 163; LIX, 258; *Franklin Farmer*, III, 313.

<sup>76</sup> *Niles' Register*, LIX, 253, 259; United States, *Memorial of Tobacco Planters in Kentucky on European Markets* (Senate Doc., 26 Cong., 1 sess., VIII, No. 601); *idem*, *Memorial of Tobacco Planters of Kentucky* (House Doc., 26 Cong., 1 sess., VII, No. 253); *idem*, *Petition of Tobacco Planters of Daviess County, Kentucky* (House Doc., 26 Cong., 2 sess., II, No. 25); *Franklin Farmer*, III, 365.

<sup>77</sup> *Farmers' Register*, VIII, 271.

<sup>78</sup> For the various arguments summarized above, see *ibid.*, IV, 747-749; IX, 33; *Niles' Register*, LVIII, 163; LIX, 258.

<sup>79</sup> United States, *Information in Relation to High Duties and Restrictions on Tobacco Imported into Foreign Countries* (House Doc., 25 Cong., 2 sess., VIII, No. 258); *idem*, *Report on Tobacco Trade* (House Doc., 25 Cong., 1 sess., VI, No. 229); *Farmer and Gardener*, IV, 22.

<sup>80</sup> United States, *Correspondence in Relation to Duties Levied on Tobacco in the German States* (Senate Doc., 27 Cong., 1 sess., No. 55), p. 16; *Niles' Register*, LVIII, 371.

<sup>81</sup> Rive, "Brief History of the Regulation of Tobacco in England," in *William and Mary Quarterly*, 2 series, IX, 84; cf. *National Impolicy of the Present High Duty on Tobacco*, *passim*.

<sup>82</sup> *Farmers' Register*, IX, 33; *Niles' Register*, LVIII, 336.

After 1840 the agitation seems to have died down for a time, probably as a result of the better prices and large crop marketed in 1841, but the embers of discontent were still smouldering. In the latter part of the sixth decade various Southern papers and organizations were again calling attention to the heavy foreign burdens on American tobacco, and in 1857 a committee of prominent planters drew up another remonstrance.<sup>83</sup> The agitation was probably minimized by the good prices of the last few years of the decade.

#### MOVEMENT OF TOBACCO PRICES

The fairly good prices in the last years of the eighteenth century<sup>84</sup> appear to have continued for several years after the beginning of the nineteenth. (See curve of export prices, Figure 10.) The average export price fell off a little in

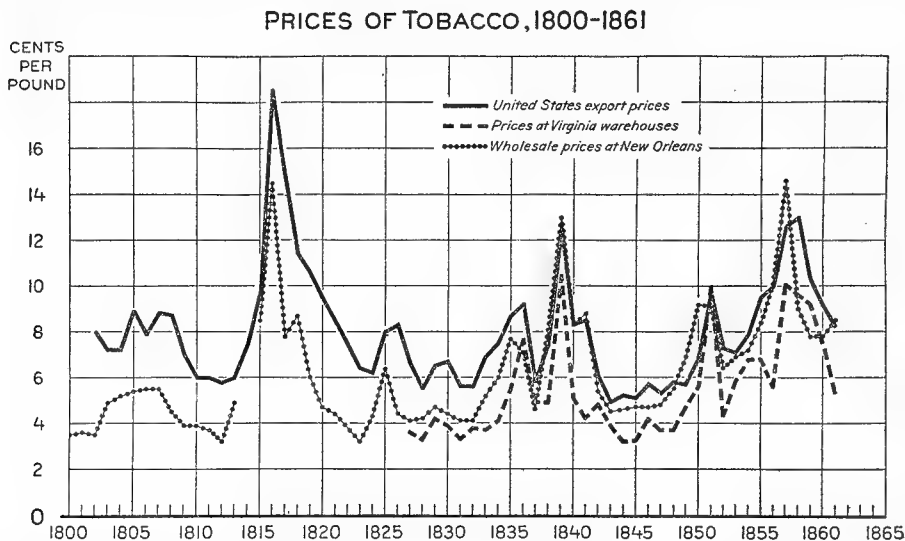


Fig. 10. The above chart is based upon the following sources: Export prices—Holmes, G. K., *Tobacco Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, Circular 33), p. 8; Virginia prices—Peterson, *Historical Study of Prices of Farm Products in Virginia*, p. 168; New Orleans prices—compiled by the author, Appendix, Table 49. Both the export prices and the Virginia prices have been changed to the commercial year by moving them forward one year.

1804 and again in 1806, when, as James Madison wrote, the price was “dull,” the best quality at Richmond selling for only 6 cents in March of that year.<sup>85</sup> In 1805 prices were described as “exorbitant.” The crop of 1806 was short because farmers could not get sufficient corn to feed their wagon horses for the purpose of bringing it to market.<sup>86</sup> The entire period 1800 to 1809 inclusive seems to have been considered one of fairly good prices. It was declared in the Maryland tobacco convention of 1837 that during this period tobacco averaged 6½ cents

<sup>83</sup> Lynchburg Agricultural and Mechanical Society, *Journal of Transactions*, 1858, p. 16; *De Bow's Review*, XXIV, 291-300.

<sup>84</sup> See above, p. 605.

<sup>85</sup> *Letters and Other Writings*, II, 221.

<sup>86</sup> Ellis & Allan to John Heathcote, Apr. 5, 1805, and to Thomas Reaves, Dec. 14, 1806, in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vols. 1800-1806, 1806-1810).

per pound, which was contrasted with only  $5\frac{1}{8}$  cents for the "same number of years to 1835." The price sagged somewhat in 1809 as a result of the embargo, which in the preceding year reduced exports to about one eighth of normal. Nevertheless, as late as February, 1810, a Virginia paper declared that tobacco bore "a fine price."<sup>87</sup> In general, by reason of the interruptions to trade from 1808 to the outbreak of the second war with England, the industry was not in so good a position as it had been in the decade just preceding 1809.

During the first three years of the century prices at New Orleans appear to have been low, but were considerably improved after the Purchase, probably due to freer conditions of exportation. From 1808 until the outbreak of the War of 1812 New Orleans tobacco prices were adversely affected by trade restrictions and uncertainties.

The outbreak of war brought still lower prices in 1812. In May, 1812, Jefferson wrote, "Tobacco (except of favorite qualities) is nothing. It's culture is very much abandoned."<sup>88</sup> Export prices were higher in 1813 and 1814 than in 1812, but quantities exported were small. Some years later Edmund Ruffin recalled that the interruptions to commerce of the war period reduced the price of tobacco to less than an equal quantity of hay sold for a little later to feed cavalry horses. Immense quantities of common tobacco sold for less than 2 cents per pound. It was during this period, he declared, that tobacco growing was finally abandoned in Tidewater Virginia.<sup>89</sup>

The movement away from tobacco advanced too far. In 1815 the total crop of the United States had decreased so greatly that after deducting the amount requisite for American consumption the remainder was far less than the supply normally required in Europe. This condition and the greatly reduced stocks in Europe brought about a period of unusually high prices, which began with the year 1815 and continued until the panic of 1819.<sup>90</sup> For 1816 scanty quotations indicate an average of  $14\frac{1}{2}$  cents per pound at New Orleans. Many who had abandoned the industry returned to it, and there was observable a rise in the value of land and of slaves in tobacco regions.<sup>91</sup> Just prior to June, 1818, tobacco in the Fredericksburg market was bringing 11 to 15 cents. By September of that year it had advanced to  $13\frac{1}{2}$  and  $15\frac{1}{2}$  cents, and first quality tobacco sold as high as 25 cents per pound.<sup>92</sup>

Tobacco prices began to decline in 1819, both in Virginia and at New Orleans, though fairly good prices were had in Virginia as late as 1822, mainly due to

<sup>87</sup> *Farmers' Register*, IV, 748; *Virginia Herald* (Fredericksburg), Feb. 7, 1810.

<sup>88</sup> *Writings* (Ford), IX, 353. This is confirmed by a letter of the firm of Ellis & Allan to William Holden, Mar. 4, 1813, *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1810-1815). See also Taylor, J., *Arator*, 266-268; letters of Leonard Covington, reprinted in Phillips, U. B., *Plantation and Frontier*, II, 201-208.

<sup>89</sup> *Farmers' Register*, III, 750 & n. For confirmation of the statement, see *American Farmer*, 1 series, IV (1822-3), p. 347; *Southern Planter*, XIX, 130.

<sup>90</sup> Charles Ellis to John Allan, Jan. 20, 1818 (Vol. 1817-1823); Ellis & Allan to R. & T. Gwathmay, Dec. 18, 1815, and to George Youille, Dec. 18, 1815; Charles Ellis to John Allan, July 14, 1815; Jan. 27, May 28, 1816; Apr. 18, 1817; Charles Ellis to Allan & Ellis, Jan. 31, Aug. 1, 1817; all in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1815-1818).

<sup>91</sup> *Virginia Herald* (Fredericksburg), Oct. 18, 1815; Charles Ellis to John Allan, Mar. 17, 1817, in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1815-1818).

<sup>92</sup> *Virginia Herald* (Fredericksburg), Sept. 30, 1818; cf. *Niles' Register*, IX, 202.

poor crops in the two preceding years.<sup>93</sup> By 1823 the European market was so completely glutted that a commission firm in Liverpool wrote, "The exports from the United States have so overwhelmed every market in Europe, that there is absolutely no outlet for exportation from this country, and no prospect of the stock on hand being consumed in it."<sup>94</sup> Prices continued low until 1825, when there was some recovery, resulting in a temporary feeling of encouragement among tobacco growers.<sup>95</sup> The improvement lasted but a short time. Virginia warehouse prices from 1827 to 1833 inclusive averaged below  $4\frac{1}{2}$  cents every year, and were below  $3\frac{3}{4}$  in 1827 and 1830. At New Orleans prices of first quality tobacco averaged for the period but a fraction above 4 cents. The great increase in European fiscal burdens during and immediately following the Napoleonic Wars had curtailed demand. On the other hand, high prices following the close of the War of 1812 had stimulated westward expansion of the industry. In 1817 it was declared that Kentucky farmers cultivated tobacco more as a means of reducing soil fertility in preparation for other crops than for the profits derived from production for export. The planters of the old tobacco States felt this Western competition keenly.<sup>96</sup>

Thus, virtually all of the period from about 1823 to 1834 was a discouraging time for tobacco planters. In 1828 there was a movement in Virginia to effect a "stint" in volume of production, but Madison declared it to be futile for three reasons: "1. Because good advice is apt to be disregarded. 2. Because it is difficult to find a substitute. 3. Because the fitness of Western climates for that article, and the fall in the price of cotton, would defeat the plan."<sup>97</sup> In the same year a committee of the North Carolina legislature declared that the planters were overwhelmingly in debt contracted in an earlier period of favorable prices, which had subsequently fallen to the point where tobacco and cotton were scarcely worth producing. In 1827 cotton was said to be superseding tobacco in parts of the Virginia tobacco belt, and in 1833 a tendency was noted to substitute wheat for tobacco.<sup>98</sup> In 1837 an agricultural writer made a detailed estimate of the costs of producing tobacco and wheat in Virginia. Assuming tobacco at about  $5\frac{1}{4}$  cents per pound, wheat at \$1 a bushel, and yields of 1,000 pounds and 25 bushels per acre respectively, he showed wheat far more profitable than tobacco. The former would still have had the advantage if a yield of only 10 bushels had been assumed.<sup>99</sup>

In the latter part of 1833 an upward movement of prices began, continuing until the panic of 1837. It was inaugurated by short crops in Virginia, Maryland, and the West, which, it was observed, brought a larger return than bountiful crops. By June, 1834, Richmond prices on the general sales ranged from 8 to 10

<sup>93</sup> Madison, *Letters and Other Writings*, III, 237, 266.

<sup>94</sup> *American Farmer*, 1 series, VI (1824-5), p. 4.

<sup>95</sup> *Virginia Herald* (Fredericksburg), June 1, 1825; *American Farmer*, 1 series, VII (1825-6), p. 250.

<sup>96</sup> Watterston, *Memoir on the Tobacco Plant*, 6; Harrison, J. B., *Review of the Slave Question*, 14; *Niles' Register*, XXVIII, 115.

<sup>97</sup> *Letters and Other Writings*, III, 627.

<sup>98</sup> Fisher, C., *Report on the Establishment of Cotton and Woollen Manufactures* (N. C., Bd. of Agric., *Papers*, III), 45-47; Niles, *Agriculture of the United States*, 6; *Farmers' Register*, I, 39.

<sup>99</sup> *Ibid.*, IV, 743.

cents, and on superior grades, 11 to 15 cents. The crop harvested that year was large, but fair prices were obtained, ranging in the Fall of 1834 at Richmond from  $4\frac{3}{4}$  cents for the most inferior to 9 and 10 cents for fine qualities.<sup>100</sup> In the next two years prices went still higher under the influence of the financial and speculative conditions that were incubating the panic of 1837.<sup>101</sup> The high prices resulted in a spirit of feverish speculation among tobacco growers. In 1836 a writer declared:<sup>102</sup>

"Within the last two years, there are men actually attempting, and do really think, that they are going to become rich, immensely rich, from making tobacco who scarcely know a tobacco plant from a mullein plant. . . . It is really amusing to see and to hear many such characters speak of what, they say, they can afford to give for rented land, and hired negroes, to make this precious and all-valuable plant. . . .

"Whilst I am constrained to ridicule the promiscuous and indiscriminate cultivation of tobacco, I am fully sensible there are many, very many planters, getting rich from its cultivation. They are not cutting down, in waste, every little piece of wood-land which they know should be reserved and used *sparingly* for rail timber. They are raising manure and making rich lots—making plenty of grain also, to raise their own hogs and horses without taking their tobacco-money to buy them. They are not running to hirings and giving them *eighty to ninety dollars* for negro men, and other hands in proportion."

The average crops exported in the market years 1836 to 1838 inclusive were more than 15 per cent greater than the average of the five years 1830 to 1834 inclusive. The large crops caused prices of tobacco to weaken and the financial collapse of 1837 broke the market and sent average Virginia warehouse prices down to but little more than 5 cents, while the average wholesale price for New Orleans was but 4.6 cents. The crop grown in 1838, however, was unusually small, and prices of 1838 and 1839 were very high, averaging 8.1 and 13 cents respectively at New Orleans.

The full effect of the cumulative stimulus of the profitable period beginning in 1834 was reflected in the enormous crop exported in 1840, the largest heretofore recorded, and the huge crop of 1841, nearly 25 per cent larger than that of the previous year. The first crop sold at fairly good prices. The exports of 1842 were considerably higher than for 1841, but the price had declined so greatly that the aggregate value was much less than in the preceding year. This was the beginning of a severe depression, which continued until 1850, except in the New Orleans market where considerable improvement occurred in the preceding year. The average annual export price was under 5 cents in each year of the depression, and the average wholesale price at New Orleans was not above 5 cents in any year except fractionally in 1848. Tobacco producers were in serious distress, and there was again agitation for reducing acreage.<sup>103</sup>

<sup>100</sup> *Farmers' Register*, I, 383; II, 125, 391; cf. *Niles' Register*, XLVI, 256; XLVII, 115.

<sup>101</sup> For Virginia quotations, see *Farmers' Register*, III, 510; IV, 446. The price series compiled by Peterson, however, shows only moderate prices for 1836.

<sup>102</sup> *Farmers' Register*, III, 711. See also *ibid.*, 104; IV, 3.

<sup>103</sup> United States, Patent Office, *Annual Reports*, 1845, p. 266; 1847, p. 374; 1848, pp. 149, 483; 1849, *Agriculture*, 132; De Bow, *Industrial Resources*, III, 349; *Niles' Register*, LXXI, 127; *Southern Planter*, IV, 108.

Gradually the acreage became less excessive, and stocks became more normal, while consumption was increasing. Exports from Virginia in the five years 1846 to 1850 inclusive averaged about 10 per cent less than for the five years 1841 to 1845. The short crop of 1850, exported in 1851, still further reduced accumulated stocks; and accordingly the export price, which had improved somewhat in the previous year, rose to a high figure.<sup>104</sup> Average annual export prices for 1851 to 1861 inclusive were nearly 40 per cent higher than for 1842 to 1850 inclusive. At New Orleans good prices prevailed throughout the period, reaching an exceptionally high average of nearly 15 cents for 1857. Virginia warehouse prices were at good to high levels in every year except 1852.

The exceptional prosperity of the industry again stimulated expansion. The building of railways made possible an extension of tobacco growing, not only west of the mountains, but also in new areas of the old tobacco States, "where, in former times, people have grown up to manhood without ever having seen a growing crop of tobacco."<sup>105</sup> A great deal of "worn out" land that had grown up to old-field pines was being cleared and planted to tobacco.<sup>106</sup> This notable expansion, which occurred in all the tobacco States, culminated in exports of 1859 greatly above those of any previous year. Moreover, the product sold at high prices. Under the influence of this expansion, prices were beginning to weaken a little just before the outbreak of the war, though still at very profitable levels.<sup>107</sup>

#### VARIETIES AND MARKET CLASSES

It will be recalled that in the colonial period the two main types of tobacco recognized by the trade were sweet-scented and Oronoko, with additional distinctions within these groups according to color and place of growth. The distinction between sweet-scented and Oronoko continued to be recognized for some time after the beginning of the nineteenth century. About 1817 they were still the two main types in the old tobacco States, although there were several lesser varieties.<sup>108</sup> It is probable that decline of the industry in the Tidewater resulted in disappearance of the sweet-scented class, but some of the other colonial varieties continued to be recognized. Thus, in 1854 a writer asserted that the principal types raised in Virginia were the Oronoko and Pryor for manufacturing and the Frederick and White Stem for shipping.<sup>109</sup> As late as 1875 the first three, which appear in the colonial terminology of the industry, were still the principal types in Maryland, Virginia, and North Carolina. Pryor was said to constitute the richest and heaviest shipping tobacco; Frederick was "larger but not so rich and waxy;" Oronoko was preferable for "smokers," fillers, and wrappers, being sweeter in flavor, finer in texture, and more easily cured yellow.<sup>110</sup>

<sup>104</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 53; *De Bow's Review*, XIV, 175.

<sup>105</sup> *North Carolina Planter*, III, 41; cf. *Southern Planter*, XII, 364; XIX, 115; United States Agricultural Society, *Journal*, VIII, 184.

<sup>106</sup> *Southern Planter*, XII, 364.

<sup>107</sup> *Louisiana Courier* (New Orleans), Aug. 31, 1858, and various issues for 1858–1860.

<sup>108</sup> Watterston, *Memoir on the Tobacco Plant*, 7.

<sup>109</sup> *North Carolina Planter*, III, 41.

<sup>110</sup> Billings, *Tobacco*, 474.

The tobacco market distinguished certain classes according to the geographic origin of the product, as well as certain grades. In 1803 quotations at Richmond distinguished James River, Rappahannock, Potomac, Georgia, Carolina, Maryland (brown, "coloury," and "Kitefoot"), and stemmed.<sup>111</sup> Tobacco produced west of the Alleghenies, generally known in the European markets as "Kentucky" tobacco, competed to some extent with the smoking tobacco of Maryland and Virginia. Although it was declared in 1842 that attempts to employ Kentucky tobacco for the manufacture of chewing tobacco had failed, the New Orleans market received considerable lots of chewing tobacco in the period 1853-1858, varying from 3,000 to 10,000 boxes and kegs.<sup>112</sup> Burley tobacco, destined to become an important material for chewing tobacco, began to be produced in small quantities in Kentucky as early as 1838, but it was not grown extensively until after the Civil War.<sup>113</sup> A large proportion of the Western tobacco was probably used for domestic consumption. In the period 1821-22 to 1827-28 inclusive more than 56 per cent of New Orleans exports was shipped "coastwise."<sup>114</sup> It is probable that the yellow-cured tobacco of Maryland and Ohio sold for more on the average in foreign markets than Virginia and Kentucky tobacco.<sup>115</sup> Not all Maryland tobacco, however, was of the bright type.<sup>116</sup> There was a preference for tobacco grown on uplands rather than on low ground and for tobacco grown on newly cleared land, the second year after clearing being considered the best, rather than on manured ground.<sup>117</sup> The yellow tobacco of North Carolina, said to have been an adaptation of the brighter varieties of Maryland Oronoko,<sup>118</sup> did not become very important commercially until afterward. We have noted the relatively unimportant and locally concentrated production of Perique in Louisiana and of cigar leaf in Florida. About 1843 a considerable amount of cigar leaf was being produced in Mason County, Kentucky, said to have been introduced by Yankees from the Connecticut valley.<sup>119</sup> In addition to important classes certain grades came to be recognized. Thus, on the London market in 1832 Kentucky tobacco was divided into fine and leafy, good middling, ordinary and old, and stripped. Virginia tobacco was quoted as fine Irish and spinners, middling, leafy, ordinary and dry, fine black, part middling, ordinary, stripped fine, and ordinary and middling.<sup>120</sup>

<sup>111</sup> *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, large Price Current bundle, e.g., Mar. 7, 1803).

<sup>112</sup> *Niles' Register*, LXII, 279; *De Bow's Review*, XV, 528; XVII, 624; XXI, 368; XXVII, 478; cf. *Farmers' Register*, II, 391.

<sup>113</sup> Verhoeff, *Kentucky River Navigation*, 101, n. B.

<sup>114</sup> *Niles' Register*, XXXVI, 303.

<sup>115</sup> United States, *Report on Commercial Relations* (*Senate Ex. Doc.*, 34 Cong., 1 sess., XIX, No. 107, Pt. I), 129. See also *De Bow's Review*, II, 254.

<sup>116</sup> *Maryland Gazette* (Annapolis), Mar. 15, 1798.

<sup>117</sup> Ellis & Allan to Charles Yancy, Feb. 1, 1805, and to John Heathcote & Co., July 3, 1805, in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1800-1806).

<sup>118</sup> Billings, *Tobacco*, 475.

<sup>119</sup> *Dollar Farmer*, II, 154; *De Bow's Review*, II, 252.

<sup>120</sup> United States, *Report of the Select Committee on the Tobacco Trade* (*House Doc.*, 25 Cong., 3 sess., II, No. 310), p. 11.



MARKET INSPECTION AND MARKET ORGANIZATION

After the close of the colonial period the distinction between "crop" tobacco and "transfer" tobacco was gradually abandoned. The former lost significance with the disappearance of tobacco from the Tidewater and the accompanying abandonment of direct consignment; and the transfer classification, after buying by grade developed. The establishment of a sound currency after 1789 decreased the employment of tobacco notes as a medium of exchange. The progress of domestic tobacco manufacturing and the increased importance of the domestic market, together with development of direct trade to France, Holland, and other foreign countries, favored the buying of tobacco by grade. The tendency to purchase according to quality probably had its beginning in the practice of making a distinction between the tobacco of different warehouses, since inspections varied greatly in accuracy. The practice of buying by grade was probably initiated late in the eighteenth century.<sup>121</sup>

Under colonial inspection laws the inspector was required to burn rejected tobacco. With the increase of domestic manufacturing and consumption there developed a demand for the rejected product, which in the five years 1831 to 1835 inclusive amounted to 41 per cent of the tobacco brought to market in Virginia.<sup>122</sup> Gradually there appears to have been a relaxation of this requirement in practice. As early as 1787 in North Carolina owners were being permitted to sell rejected tobacco, though, of course, they were not given transfer notes for it. At that time the proposal to sell by grade "without rejecting any" was being agitated.<sup>123</sup> About the close of the eighteenth century Tatham declared:<sup>124</sup>

"The rejected tobacco has been heretofore another privileged source of considerable depredation; and I presume the items of snuff and soap ashes have yielded respectable profits. I understand that late laws have abated the rigour of this inquisitorial penalty, and that a planter is now clearly permitted to take away and make the best of an inferior commodity."

He believed the inspector should classify the tobacco according to the use for which it was suited. In 1803 a citizens' petition urged an amendment of the act with reference to the burning of rejected tobacco, declaring that inspectors were selling such tobacco, which should be returned to the owners.<sup>125</sup> Furthermore, there is evidence that inspections had become very inefficient, so much so that merchants were insisting on reinspections. Reinspected tobacco commanded a premium.<sup>126</sup> In 1837 a writer was complaining of an increase in the practice of

<sup>121</sup> Brissot de Warville, *New Travels in the United States*, 438; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 154; Virginia State Agricultural Society (Special Committee, N. F. Cabell, chairman), Report on history of improvements in Virginia agriculture, in *Journal of Transactions*, I, 116; *Southern Planter*, XXII, 364.

<sup>122</sup> See above, p. 228.

<sup>123</sup> Attmore, *Journal of a Tour to North Carolina* (James Sprunt Historical Publications, XVII, No. 2), p. 36.

<sup>124</sup> *Essay on Tobacco*, 97.

<sup>125</sup> *Petition of the Citizens of Amelia County, Dec. 10, 1803* (Virginia State Library, Archives Department, No. 4588).

<sup>126</sup> Ellis & Allan to Thomas Leiper, Oct. 26, Nov. 11, 16, 1801; to Colonel William Taliaferro, May 27, 1803; to John Heathcote & Co., July 3, 1805; to William Holder, Oct. 27-31, 1811; all in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vols. 1800-1806 and 1810-1815).

bringing to market trash that formerly was employed as fertilizer. "New primings," a very inferior type that manufacturers had found means to use, was being sold at \$1 to \$2 per hundred pounds.<sup>127</sup> The rise of domestic manufacturing also tended to improve the market for high grade tobacco, whereas inspections did not distinguish the highest grade from the common run of "passed" leaf. In 1853 it was asserted:<sup>128</sup>

"The prices paid by the manufacturers for peculiar qualities of tobacco far exceed those obtained for the article in any other market. While an exporter cannot afford to pay more than 6 to 10 cents per pound for good to fine leaf, a manufacturer will pay 15, 20, 25, and even 30 to 50 cents for such as best suits his purpose."

As early as 1805 the commercial importance of so-called "rejected" tobacco had compelled the Virginia legislature to amend the inspection laws by authorizing its sale, but subject to heavy penalties for exporting it.<sup>129</sup> However, there developed considerable hostility to the practice of rejecting tobacco after inspection, partly because of the reputed injury to its market value and partly because of the increasing practice of shipping tobacco to ports in other States, where it was again inspected. This difficulty was an especial grievance to Maryland planters whose tobacco was shipped to Philadelphia, New York, Boston, and other domestic markets.<sup>130</sup> As late as 1853, however, a writer declared:<sup>131</sup>

"The inspection laws of Virginia, based on old colonial statutes, abound in absurdities . . . Although the purchaser buys by the sample, on his own judgment, the law requires the inspector to qualify the tobacco as '*passed*,' '*refused*,' '*too high*,' etc. . . . The purchaser pays no attention to this, but frequently pays more for '*refused*' than for '*passed*.'"

The inspection system of New Orleans, the most important of the export markets, also caused much dissatisfaction. Under an early inspection law the inspector was permitted to classify the tobacco into four grades. The fact that the law permitted inspection without removing the cask resulted in serious frauds in false packing. The adoption by law of a rate of tare at 10 per cent of gross weight, later changed by conventional agreement to 12½ per cent, created an inducement for increasing the weight of the cask, some being so constructed as to weigh 300 or 400 pounds. Prices were affected, and buyers driven to other markets. The legislature was slow in responding to petitions for relief, and the trade was compelled to adopt conventional agreements for inspection. The evils were not corrected by law until the middle of the fifth decade.<sup>132</sup>

With the passing of the tobacco industry in the Tidewater, Alexandria and Fredericksburg lost much of their former importance as concentration markets. Fredericksburg, in fact, had developed a reputation for inferior tobacco.<sup>133</sup> Rich-

<sup>127</sup> *Farmers' Register*, IV, 446.

<sup>128</sup> *De Bow's Review*, XIV, 176.

<sup>129</sup> *Virginia Laws* (Pleasants, pub.), II, 83.

<sup>130</sup> *Farmer and Gardener*, III, 155; *Southern Planter*, VIII, 209.

<sup>131</sup> *De Bow's Review*, XIV, 176.

<sup>132</sup> *Ibid.*, II, 42-46.

<sup>133</sup> *Virginia Herald* (Fredericksburg), Oct. 18, 1815.

mond continued an important market for tobacco coming down James River, but much of this was first concentrated at Lynchburg. By 1805 the latter market had six tobacco warehouses, and tobacco was being brought thither from a considerable distance by rolling hogsheads. The completion of the James River and Kanawha Canal and the construction of railroads increased the importance of Lynchburg as a tobacco market. In spite of the westward shift in the North Carolina industry its product continued to be marketed mainly through Petersburg, Virginia. Smaller quantities were marketed at Farmville and Clarksville.<sup>134</sup>

In these concentration markets the custom developed of selling on the "breaks"—that is, a large number of hogsheads were broken open and a considerable number of buyers assembled to bid on the contents. Early in the century a good deal of tobacco was purchased by merchants in the planter's barn before prizing.<sup>135</sup> A description of the evolution of the tobacco trade of Danville, Virginia, by various contemporary writers indicates that about 1829-30 much of the tobacco was first purchased by merchants direct from the farmer and then prized and delivered to the State warehouses for inspection. The town was also the seat of ten small tobacco factories. The panic of 1837 almost destroyed the town's tobacco business, and the warehouses were discontinued. For some time after business began to revive, tobacco was sold in the open street to the highest bidder. In the last years of the ante bellum period the town succeeded in establishing warehouses where loose-leaf tobacco was sold. In 1858 a tobacco exchange was established at Richmond, although planters of Prince Edward County protested that it would result in transferring the sale "from the hands of the planter to the commission merchant."<sup>136</sup>

In spite of these tendencies toward greater concentration in the marketing of tobacco the processes of initial sale by the producers continued to be largely employed. The common practice was to sell a good deal of the product to local manufacturers and local buyers or merchants who "furnished" the planters and farmers on credit. Some tobacco was consigned by the planters to factories in Richmond and Petersburg.<sup>137</sup>

There were a number of important concentration markets, some of which were also export markets. Baltimore was the principal market for Maryland tobacco and for a good deal of the Ohio product, with Georgetown and Alexandria as minor centers. Some Virginia tobacco was shipped to Baltimore. In the early period of trans-Allegheny development Western tobacco was shipped direct to New Orleans, but gradually it was found expedient to concentrate it first. Although during the first quarter of the nineteenth century Louisville was a minor concentration point, as late as 1839 only 1,295 hogsheads were shipped; but by 1846 the quantity had increased to 9,700 and by 1852 to 16,176. The new development was of great advantage to the Kentucky producer, hitherto compelled

<sup>134</sup> Christian, *Lynchburg and Its People*, 37-38; *Southern Planter*, XII, 363; *North Carolina Planter*, II, 367; *Niles' Register*, LXXIV, 236.

<sup>135</sup> Christian, *Lynchburg and Its People*, 86; Chas. Ellis to John Allan, Oct. 13, 1815; Jan. 7, 1816; both in *Ellis and Allan Letter Books* (Manuscripts, Library of Congress, Vol. 1815-1818).

<sup>136</sup> Pollock, *Illustrated Sketch Book of Danville, Virginia*, 20, 26, 32-35; *Southern Planter*, XVIII, 387.

<sup>137</sup> Paul, *History of Durham*, 93.

to ship the long distance to New Orleans on consignment and take what he could get on arrival.<sup>138</sup> Clarksville, Tennessee, as we have noted, early became an important concentration and manufacturing market. In 1859 the town exported 13,000 hogsheads of leaf tobacco, 2,500 hogsheads of stripped and dried leaf, and 700 hogsheads of stems.<sup>139</sup> Between 1840 and 1850 Nashville also attained some importance as a tobacco market.<sup>140</sup> Hopkinsville and Hendersonville enjoyed a trade as tobacco concentration points. St. Louis became the principal market for the Missouri producing area. The relative importance of the various export markets in 1828-29 was as follows:<sup>141</sup> Boston, 4,000 hogsheads; New York, 7,876; Philadelphia, 1,465; Baltimore, 17,717; Georgetown, 4,179; Alexandria, 8,821; Petersburg, 6,604; Richmond, 20,285; Norfolk, 726; and New Orleans, 17,172. There were a number of minor places exporting less than 500 hogsheads each.

#### TECHNIQUE OF PRODUCTION

Between the close of the colonial period and the Civil War important changes occurred in the technique of producing tobacco. In the old tobacco producing regions particularly, there was a transition from a one-crop system to a system in which tobacco became an integral part of general crop and livestock farming. There was also great progress in selecting varieties adapted to the needs of the market and in methods of curing. In fact, the greater attention requisite for improved methods of curing probably reduced the proportion of farm acreage that could be cared for with a given amount of labor, so that tobacco was no longer "the monopolist of land it formerly was."<sup>142</sup> It was now grown on a series of lots of moderate extent, operated under a regular rotation. The manure required was therefore far less than formerly, and a larger quantity remained for the fields of grain. These changes reduced the amount of labor required for clearing new tobacco lands, releasing that labor for use on other crops. On estates where a large proportion of the land used for tobacco had formerly been cleared, the annual clearing was reduced to a half acre per hand each year. These improvements, however, came too late to save the industry in Tidewater Virginia, and even in the Piedmont were adopted only after the one-crop system had resulted in greatly impaired fertility.<sup>143</sup>

In spite of this progress, however, there continued to be a great many farmers in the old tobacco producing States who followed the one-crop system.<sup>144</sup> Among a number of planters there developed a change of attitude toward the exhaustive effect of tobacco. In 1818 James Madison declared that only a little more than half of the tobacco crop was marketed, most of the remainder constituting a fertilizer, and "a very rich one." He believed that it had been "more carefully

<sup>138</sup> *Louisville Public Advertiser* (Kentucky), Apr. 20, 1822; *De Bow's Review*, XIV, 217; *Dollar Farmer*, I, 105, 154.

<sup>139</sup> *Williams' Clarksville Directory* (Clarksville, Tenn., 1859), I, 20.

<sup>140</sup> Killebrew, *Report on the Culture and Curing of Tobacco*, 168.

<sup>141</sup> *Niles' Register*, XXXV, 366.

<sup>142</sup> Virginia State Agricultural Society (Special Committee, N. F. Cabell, chairman), Report on history of improvements in Virginia agriculture, in *Journal of Transactions*, I, 116.

<sup>143</sup> *Farmers' Register*, I, 441; II, 234; III, 48; IX, 177, 198; Minor, P., *Notes on Tobacco*, 4, 14-15.

<sup>144</sup> *Southern Planter*, XIX, 130.

used as a manure than any other article furnished by our crops."<sup>145</sup> A few years later another writer declared that tobacco "in itself is less an exhauster than corn or wheat."<sup>146</sup> In 1859, when the tobacco industry was very prosperous, an agricultural writer declared that tobacco was an exhauster of potash and of nothing else. Only the leaf was taken from the land, stalk and root being returned to the soil.<sup>147</sup>

The attention to quality by better curing was more or less duplicated by greater care in the earlier stages of production. While doubtless the majority of planters and farmers proceeded largely by rule-of-thumb methods, one is impressed with the minute attention to detail exhibited by the current agricultural discussions of methods of growing and curing tobacco.<sup>148</sup>

The practice of making plant beds on newly cleared virgin tracts and of burning them over with piles of brush and logs prior to sowing was continued in the post colonial period. Some thought fire benefited the soil, while others believed the benefit due to the ashes. In some places virgin land suitable for plant beds was becoming scarce, and there was a tendency to establish permanent beds and to fertilize them systematically. Various remedies were employed at this stage to prevent damage from the fly, such as sprinkling the beds with ashes or newly slaked lime. Guano, plaster, and other fertilizers were used as a top dressing.

Although many continued the laborious process of going over new ground with mattocks and heavy hoes to supplement the work of the plow in breaking and clearing out roots, gradually old lands in rotation with corn, small grain, and clover were more and more employed, and the clover fallow broken up for tobacco by plowing and harrowing. The field was cross-checked by throwing up narrow ridges at intervals of  $2\frac{1}{2}$  to  $4\frac{1}{2}$  feet in each direction. The intersections formed a hill, the top of which was first cut off with the hoe, and the remainder pressed down to supply a compact soil for the plant. Transplanting from the beds required much care and skill. Some careful planters employed a simple division of labor. A skillful hand was assigned to withdraw the plants from the beds, and other hands carried them out in baskets and dropped them by the hills. Another group flattened out and patted down the top of the hills, while still another group performed the operation of setting.

The earlier stages of cultivation, consisting of hoeing and hand-weeding, comprised operations to which intelligent planters gave much study in order to accomplish the best results without too great an expenditure of labor. Both in early and later stages of cultivation plows or cultivators were employed to break out the middles, supplemented by the hoe. The lay-by period came when the plant was so large that there was danger of breaking off the leaves.

<sup>145</sup> *Letters and Other Writings*, III, 83.

<sup>146</sup> Minor, P., *Notes on Tobacco*, 7; *Southern Planter*, III, 4.

<sup>147</sup> *Ibid.*, XIX, 147.

<sup>148</sup> Subsequent details on cultivation are based on the following sources: *Farmers' Register*, I, 641; IX, 177-183, 198-201; *American Farmer*, 1 series, III (1821-2), p. 381; *Southern Planter*, I, 119; III, 4, 26, 65; XVII, 289-291; *Farmer and Gardener*, I, 26; *North Carolina Planter*, III, 41-43, 70-73; *Cultivator*, IX, 113; United States, Patent Office, *Annual Reports*, 1845, p. 741; 1850, *Agriculture*, 342; Minor, P., *Notes on Tobacco*; Tuck, *Essay on the Curing, Management, and Cultivation of Tobacco*. The "Prize Essay on Tobacco Cultivation," by Adam Beatty of Kentucky, was reprinted in a number of agricultural journals and also in his book, *Essays on Practical Agriculture*, 115-126.

When the tobacco reached a height of 2 or 3 feet and the flower or bud appeared, the plant was "topped" and "primed." The first operation consisted of removing the bud, while the second involved stripping off 4 or 5 of the lower leaves. Not all planters, however, made a practice of priming. Some held that the small leaves at the bottom did not draw much nourishment from the middle leaves, but served to protect the latter from dust. As the season advanced, other leaves were removed from the top of the plant until it was finally reduced to from 7 to 12 leaves, according to type of tobacco and quality of soil, the heavier types being topped to a smaller number of leaves than the lighter types, and the lighter soils requiring a smaller number of leaves than could be left on the heavier soils. The removal of suckers was necessary twice or more during the season, and opinions varied as to the effect of time of removal on quality of the product. The tobacco caterpillar, or horn worm, appeared early, and there was a constant battle during the growing season to destroy them with sufficient speed to prevent serious injury.

It is doubtful if there was much increase in product per man from the close of the colonial period<sup>149</sup> until the Civil War. In the decades before the Civil War the average product per acre varied from 800 to 1,000 pounds, and the customary task was 2 to 3 acres per hand.<sup>150</sup> In some areas soil exhaustion had more than offset progress in methods of cultivation. In 1835 a writer declared that whereas in the colonial period 3,000 pounds to the hand was not an uncommon crop, the current average for Mecklenburg County, Virginia, was not above 1,000.<sup>151</sup>

#### HARVESTING, CURING, AND PREPARATION FOR MARKET

Selection of the right stage of maturity for cutting was another process requiring experienced judgment, for it was believed to have a notable effect on quality. The procedure in cutting tobacco depended on the method employed in putting the plants on the sticks. The colonial practice of pegging became less and less common. The practice of spearing by thrusting a sharp iron-pointed stick through the stalk was employed by some planters; but the expense of thus equipping the stick and the skill required to spear the tobacco worked against the continued employment of this process. The method of splitting the stalk by means of broad, chisel-shaped knives fitted with handles became more and more generally employed. The cutter followed the splitter and severed the stalk well below the split by means of a curved knife or hook. The tobacco plant was left for some hours to wilt so that the leaves would become less brittle. It was then placed straddling on the tobacco sticks, 8 to 10 plants on each stick. The practice of gathering and curing the ground leaves, which was anathema in the colonial period, ceased to be condemned. This grade of tobacco, known as "lugs," came to be a recognized market class.

Progress in methods of curing was especially stimulated by development of

<sup>149</sup> See above, p. 218.

<sup>150</sup> Beatty, *Essays on Practical Agriculture*, 118; United States, Patent Office, *Annual Reports*, 1845, p. 742; 1847, p. 374; *Agriculture*, 1850, pp. 214, 220; 1851, pp. 297, 306; 1855, p. 267; *Cultivator*, new series, II, 239; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 547.

<sup>151</sup> *Farmers' Register*, II, 265.

the practice of buying by quality, and "Experiments in its cure and after-handling were multiplied in endless variety."<sup>152</sup> Reports of large premiums obtained from time to time for tobacco of unusually fine quality tended to stimulate greater zeal.<sup>153</sup> Three principal methods were in use for curing tobacco, namely, sun curing, curing by the heat and smoke of wood fires, and curing by means of flues consuming charcoal.<sup>154</sup> A dissertation on tobacco production published in 1822 refers to flue curing as a recent innovation.<sup>155</sup> Progress in flue curing was facilitated about a decade later by the work of David G. Tuck, who invented an improved type of flue, introduced the systematic use of the thermometer in connection with devices for regulating the amount of heat, studied systematically the most effective temperatures for curing tobacco of different kinds and under varying weather conditions, and published a detailed treatise on methods of curing.<sup>156</sup> In addition to other advantages, flue curing was found safer than the earlier practice of building open fires in the barns.<sup>157</sup> The process of fire curing probably became more general after 1812 by reason of the increased demand of the export market for highly colored tobacco.<sup>158</sup> About 1840 a writer on tobacco production asserted, "Some fire is necessary for all tobacco that is exported."<sup>159</sup> Fire curing also had the advantage of economizing barn room by permitting quicker curing; and the employment of scaffolds, on which the tobacco was partially cured before being hung in the barn, also tended to economize space, though subject to danger of injury by sunburn or by prolonged rain.<sup>160</sup> It is probable that the geographic segregation of different methods of curing characteristic of the present-day industry had its beginnings before the Civil War. Fire curing seems to have been common in middle Virginia, and flue curing was associated with the development of the bright yellow types in north central North Carolina and southern Virginia. Air curing, as we have noted, seems to have been a prevalent practice in Maryland and probably also in the trans-Allegheny regions.

The processes of proper curing required great skill. When tobacco was carried direct to the barn care in hanging was necessary to prevent "house burning" due to the plants being too close to one another. Some planters made a practice of building fires under the tobacco immediately, but probably the majority of those not employing scaffolds allowed a preliminary air curing or "yellowing" to occur, after which fire was applied and the heat gradually increased. Temperatures to be used varied in accordance with type of tobacco, with its condition when cut, and particularly with fluctuations in the weather during the process of curing. When the planter employed open fires and poorly built barns, and lacked means of determining temperatures, the process was highly empirical.

<sup>152</sup> Virginia State Agricultural Society (Special Committee, N. F. Cabell, chairman), Report on history of improvements in Virginia agriculture, in *Journal of Transactions*, I, 116.

<sup>153</sup> For instance, see *Virginia Herald* (Fredericksburg), Apr. 20, May 21, June 1, 1825.

<sup>154</sup> Lynchburg Agricultural and Mechanical Society, *Journal of Transactions*, 1858, p. 41; Paul, *History of Durham*, 219.

<sup>155</sup> Minor, P., *Notes on Tobacco*, 16.

<sup>156</sup> *Essay on the Curing, Management, and Cultivation of Tobacco*, 12-17.

<sup>157</sup> *Southern Planter*, III, 26; *Farmers' Register*, IV, 41; IX, 181-183.

<sup>158</sup> Paul, *History of Durham*, 219.

<sup>159</sup> *Southern Planter*, I, 119.

<sup>160</sup> Beatty, *Essays on Practical Agriculture*, 122.

Many planters injured tobacco by too much heat, others by allowing it to "come and go"—that is, to become alternately dry and moist. The smoke of open fires, even though allowed to escape through the roof, tended to impart a disagreeable flavor. In view of these various difficulties the development of the flue and of systematic methods of controlling heat marked a notable stage in the progress of the industry. It is probable, however, that air curing continued to be the most usual process, particularly in Maryland and the trans-Allegheny tobacco regions.

After curing, tobacco was allowed to become "in case," that is, to absorb sufficient moisture to permit stripping. It was then "bulked," or placed in piles to prevent loss of moisture before stripping. Some planters believed quality could be improved by allowing tobacco to heat in the bulk, but others disagreed vigorously. After the leaves were removed from the stalk, they were sorted by quality, and tied in bundles wrapped in one of the leaves. Afterwards the tobacco was "prized" in the hogshead, care being taken that the right degree of moisture was present to permit effective prizing without the product becoming mouldy.



## CHAPTER XXXIII

### TECHNICAL PROGRESS OF CROP HUSBANDRY IN THE POST COLONIAL PERIOD

Outstanding Agricultural Leaders, 779. Agricultural Societies and Fairs, 782. Agricultural Journals, 788. Agricultural Education and Research, 789. Farm Implements and Machinery, 792. Soil Conservation and Improvement, 800. Field Systems, 807.

#### OUTSTANDING AGRICULTURAL LEADERS

During the colonial period there was little scientific experimentation and practically no formal organization for disseminating the results of experimentation. Nevertheless, by the rough methods of trial and error much progress was made in selecting crops, methods of cultivation, and types of livestock adapted to the environment. Toward the close of the colonial period some of the more intelligent and prominent planters, of whom Washington and Jefferson were typical, became more or less acquainted with the methods of the new agriculture of Great Britain and began to undertake formal experimentation, freely giving the benefit of their observations to their neighbors and acquaintances.<sup>1</sup> Their activity gave increased prestige to agricultural inquiry and experimentation, although many planters still concerned themselves more with politics and general literature than with agriculture and agricultural literature.<sup>2</sup> During the course of the post colonial period such planter leaders accomplished a great deal by keeping in touch with new developments in England and the Northern States, trying out the new methods in their local environment, undertaking experiments of their own, and disseminating the results of their experience.

In the period when agriculture was emerging from the confusion of the Revolutionary War the writings of John Bordley, of Maryland, were influential in spreading a knowledge of the new English agriculture and the most approved American practices. In the same period John Binns and Israel Janney introduced into northern Virginia the clover and plaster husbandry, developed in Pennsylvania.<sup>3</sup> Pioneer and influential work in the introduction of improved livestock was carried on by General Gough, of Maryland, and Matthew Patton, of Virginia.<sup>4</sup> In South Carolina Kinsey Burden, William Elliott, and others were developing the practice of seed selection in the improvement of sea-island cotton.

Early in the nineteenth century credit should be given to Thomas Mann Randolph, of Albemarle County, Virginia, for the introduction of the practice of horizontal plowing on hillsides; to Fielding Lewis, of Charles City County, Virginia, for pioneer work in the use of lime; to John G. Mosby, of Curles Neck, who was active in the introduction of clover and plaster husbandry in lower Vir-

<sup>1</sup> See above, p. 612.

<sup>2</sup> For complaint on this score, see *Southern Silk Journal and Farmers' Register*, I, 26.

<sup>3</sup> See p. 809.

<sup>4</sup> See below, p. 848.

ginia; and to Philip Tabb, of Gloucester County, Virginia, for popularizing the bedding of low grounds.<sup>5</sup>

Far more significant than any of these leaders was John Taylor, of Caroline County, Virginia. In 1809 or 1810 he published a series of agricultural essays in a journal called *The Spirit of Seventy-Six*. In 1812 these essays were published collectively under the title *Arator*, which quickly passed through six editions. Taylor discussed many phases of agricultural practice, but his principal emphasis was on deep plowing, a four-field system of rotation, bedding, composting and handling of manure, and the restoration of worn-out lands by inclosure without grazing. Taylor wielded a trenchant pen, and became widely known as an exceptionally good farmer whose bountiful crops bore witness to the merits of his teachings. Consequently his book exerted a widespread influence. Edmund Ruffin declared of it:<sup>6</sup>

"It was the first original agricultural work (worthy to be so called) which had ever been published in Virginia, or in the southern states; and it appeared at a time when agricultural improvement was still neglected by the men of Intelligence and wealth . . .

" . . . Almost every intelligent land-holder became a reader of *Arator*, and which book also constituted generally his earliest and sole agricultural study. . . .

" . . . The great but indirect benefit which resulted from the publication of '*Arator*' was the producing a new zeal for, and giving a strong and lasting impulse to, agricultural improvement in general."

Ruffin himself was the most influential leader of Southern agriculture and one of the greatest agricultural figures America has produced. His essential contribution was in popularizing the use of marl in the South Atlantic coastal plain. Ruffin did not claim to be the original discoverer.<sup>7</sup> Marl had long been used in European agriculture, and had been occasionally employed in Virginia since the early years of the colonial period.<sup>8</sup> Shortly before 1820, according to Ruffin, there were three or four farmers in Virginia using marl, and other experiments with it had been made within the previous half century. John Singleton, of Talbot County, Maryland, had also tried marl as early as 1805, and in 1817 had published the results of his experiments.<sup>9</sup> According to Ruffin, however, these various experiments "from total misconception of the true mode of action of calcareous manures, had been decreed failures."<sup>10</sup>

After serving in the War of 1812, Ruffin took up farming on his plantation at Coggin's Point, on the James river. For some years he was an ardent apostle of John Taylor, but met with disappointment in trying to improve his exhausted lands by vegetable manures. A reading of Sir Humphrey Davy's *Agricultural*

<sup>5</sup> Virginia State Agricultural Society (Special Committee, N. F. Cabell, chairman), Report on history of improvements in Virginia agriculture, in *Journal of Transactions*, I, 114; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 56; *Cultivator*, I, 83.

<sup>6</sup> See Edmund Ruffin's editorial preface to 7th edition, reprinted in *Farmers' Register*, VIII, 703. See also *ibid.*, I, 585; VIII, 46; X, 385.

<sup>7</sup> See above, p. 199.

<sup>8</sup> Bruce, P. A., *Economic History of Virginia*, I, 427. Washington applied marl to tobacco in 1760, and to wheat in 1764 and 1784. Haworth, *George Washington: Farmer*, 93-95, 102, 105 n.; Washington, *Diaries (Fitzpatrick)*, I, 164.

<sup>9</sup> *Farmers' Register*, IX, 22-25, 264; Philadelphia Agricultural Society, *Memoirs*, IV, 238-247.

<sup>10</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 57.

*Chemistry* suggested the hypothesis that soil acidity was responsible for the small benefit of vegetable manures, and that carbonate of lime was the remedy. In 1818 Ruffin applied marl on fifteen acres. In 1821 he presented the results of his experiments at a meeting of the agricultural society of Prince Georges County, and published the paper in the *American Farmer*.<sup>11</sup> From this time forward calcareous fertilizers became the central interest of Ruffin's life. For many years he carried on carefully organized experiments. He analyzed soils, searched for deposits of marl and determined their lime content, tried the effects of applications of various quantities of marl or of marl in combination with animal manure and different kinds of vegetable manures, keeping careful records of the results in yields and in financial returns. He searched the literature of various countries for a record of their experience. He was no less active in propagating the result of his inquiries. In 1832 his first paper, somewhat amplified, was published in book form as *An Essay on Calcareous Manures*, gradually expanded in subsequent editions to nearly 500 pages. It was followed by numerous articles on the subject. Ruffin argued that marl neutralized soil acidity, altered the texture and absorbency of soils, produced earlier maturity of crops, and supplied a missing element of plant nutrition.<sup>12</sup> In addition to his favorite text, Ruffin was notable for his zeal in spreading the gospel of better agricultural methods. He was the author of some fifty agricultural articles and a number of books and pamphlets, and for ten years editor of the *Farmers' Register*. He was closely identified with the development of agricultural societies and fairs, and in 1841 he was elected a member of the newly established Virginia State Board of Agriculture. In 1842 he was placed in charge of the agricultural survey of South Carolina. On returning to Virginia he aided in founding the Virginia State Agricultural Society, and became its first president. He was an enthusiast on the subject of agricultural education, and in 1853 won a prize for an essay on that subject.

Ruffin was essentially a crusader. In the forties he threw himself into the campaign to reform the evils of wildcat banking. He became a zealous defender of slavery and formulated a philosophy of slavery, published in numerous articles and pamphlets. At the age of sixty-eight, it is said, he fired the first gun at Fort Sumpter, and he fought in defense of his convictions until the surrender at Appomatox.<sup>13</sup>

Next to Ruffin probably the most influential agricultural leader in the South was Dr. Martin W. Philips, a South Carolinian who moved to Mississippi, establishing himself on a small farm near Edward's Depot. He employed from ten to twenty working slaves in a mixed husbandry, and by his excellent management succeeded in making as much cotton per hand as his neighbors, besides large quantities of animal and grain products. Philips was a frequent contributor to

<sup>11</sup> *Ibid.*, 57-59.

<sup>12</sup> South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), pp. 52-53 & n.

<sup>13</sup> Concerning Ruffin's career, see particularly E. G. Swem's *Analysis of Ruffin's Farmers' Register, with a Bibliography of Edmund Ruffin* (Virginia State Library, *Bulletin*, XI), Nos. 3-4, p. 42; Ellis, "Edmund Ruffin," in the *John P. Branch Historical Papers*, III, No. 2; Cutter, "A Pioneer in Agricultural Science," in U. S., Dept. Agric., *Yearbook*, 1895, pp. 493-502; Ruffin, *Diary*, 1856-1865 (Manuscripts, Library of Congress). On the esteem in which he was held, see *Valley Farmer* (St. Louis), VI, 200; *Southern Agriculturist*, new series, IV, 45.

agricultural papers. His main thesis was diversification and the employment of labor-saving devices to permit the planter to raise his supplies and improve his land while still maintaining a normal output of cotton.<sup>14</sup>

Among the agricultural publicists who contributed through experimentation, writing, or organization to the spread of improved methods were the following: George Washington Jeffreys, who zealously promoted agricultural progress in North Carolina after the War of 1812, and whose essays during the second decade of the century were published under the title *On the First Principles of Agriculture*; <sup>15</sup> the pioneer agricultural journalist John S. Skinner, editor of the *Plough, the Loom, and the Anvil*, the *American Farmer*, and *Skinner's Farmers' Library*; Adam Beatty, author of a number of careful essays on agricultural practice in Kentucky; Whitmarsh B. Seabrook, the historian of sea-island cotton and the exponent of improved methods of cotton production; R. F. W. Allston, essayist on rice production; Thomas Spaulding and Thomas Affleck, voluminous writers on miscellaneous matters of agricultural interest in the lower South; N. B. Cloud, the advocate of intensive methods of producing cotton; Solon Robinson, the veteran Northern traveller and agricultural correspondent, who was ever an intelligent and friendly critic of Southern agricultural practices; James M. Gannett, president of the Virginia Board of Agriculture, who afterwards collaborated with Robinson in promoting the United States Agricultural Society;<sup>16</sup> Norman J. Colman, editor of the St. Louis *Valley Farmer* and active lecturer on agriculture;<sup>17</sup> Dr. Daniel Lee, editor of the *Southern Cultivator*, and a friendly critic of Southern agricultural practices; Gideon B. Smith, of Baltimore, who made a special study of the locust, in addition to numerous other labors in the interest of agriculture;<sup>18</sup> Thomas Ruffin, agricultural reformer of North Carolina; and Dr. John P. Barratt, an influential leader of agricultural progress in South Carolina just before the Civil War.<sup>19</sup> There were a number of others whose special contribution was in improving breeds of livestock.<sup>20</sup>

#### AGRICULTURAL SOCIETIES AND FAIRS

The technical progress of Southern agriculture was greatly furthered by the increase of agricultural societies and fairs.<sup>21</sup>

During the eighteenth century there were numerous planters' clubs, which provided opportunity for the discussion of agricultural problems. As early as 1728 planters' clubs were formed in Maryland to promote the tobacco trade.<sup>22</sup> In 1768 a "Planter's Club" was formed at Cheraw, South Carolina, modelled

<sup>14</sup> Dr. Philips' diary is published as "The Diary of a Mississippi Planter," with a biographical sketch by Franklin L. Riley, in *Mississippi Historical Society, Publications*, X, 305-481.

<sup>15</sup> See Watson, *Rise, Progress, and Existing Condition of the Western Canal*, 114.

<sup>16</sup> See *Farmers' Register*, IX, 477; also article on Virginia agricultural history by A. J. Morrison, in *Southern Planter*, LXXVI, 50.

<sup>17</sup> See *Valley Farmer* (St. Louis), X, 162.

<sup>18</sup> United States Agricultural Society, *Monthly Bulletin*, I, 10.

<sup>19</sup> See *Farmer and Planter*, X, 349.

<sup>20</sup> See Chap. XXXV.

<sup>21</sup> *Southern Agriculturist*, III, 6; *American Farmer*, 1 series (1819-31), I, *passim*; III, 158, 218, 220, 251; IV, 89, 289; V, 201, 345; VI, 81, 162; X, 89; XII, 241.

<sup>22</sup> Darnall, *Just and Impartial Account of the Transactions of the Merchants of London for the Advancement of the Price of Tobacco*, 18.

after those existing in the lower part of the Colony.<sup>23</sup> By 1757 the Winyah Indigo Society was incorporated, and in 1792 was granted permission for a lottery to provide funds for establishing a seminary of learning.<sup>24</sup> The nonimportation period preceding the Revolution gave rise to a number of societies designed to stimulate manufactures and the production of wool, flax, and hemp. Such a society was announced at Charleston, South Carolina, in 1769.<sup>25</sup> The Virginia Society for the Advancement of Useful Knowledge was organized in 1774.<sup>26</sup> In 1776 the Continental Congress urged the establishment in every Colony of "A society for the improvement of agriculture, arts, manufactures, and commerce," and that a correspondence be maintained among them.<sup>27</sup>

Probably the first purely agricultural society in the South was organized in 1785 at Charleston, South Carolina, known as the South Carolina Agricultural Society. George Washington was made honorary president, and Jefferson honorary vice president.<sup>28</sup> The name was changed in 1798 to "South Carolina Society for Promoting and Improving Agriculture."<sup>29</sup> Membership in the organization was largely confined to the aristocratic planter class of the Charleston district, and ordinarily each meeting was the occasion for a dinner. It continued nominally in existence until after the Civil War, though probably dormant for considerable periods. In 1806 it promoted a successful lottery which provided sufficient funds to permit the purchase of an experimental farm of some forty acres and the offering of premiums from time to time to encourage many lines of improvement. Among the various undertakings promoted or encouraged by the society were the water culture of rice, invention of a hydraulic machine for rice fields, methods of destroying the cotton caterpillar and whitening the fiber of cotton, production of oil from olives, cotton seed, and other plants, production of dried figs, breeding of merino sheep and other kinds of livestock, and high yields of crops, besides experimentation with many exotic plants, such as tea, millet, figs, and sugar.<sup>30</sup> In 1824 the society published a volume of some seventy essays on a wide range of agricultural subjects, under the editorship of William Washington.<sup>31</sup>

The South Carolina Society was soon followed by several other early agricultural organizations. In 1787 the Kentucky Society for Promoting Useful Knowledge was formed at Lexington.<sup>32</sup> Several societies were formed in the period just preceding the War of 1812, largely under the impulse for sheep raising.

<sup>23</sup> Gregg, *Old Cheraus*, 119. Concerning the European example as influencing the establishment of agricultural societies in America, see True, "Early Development of Agricultural Societies in the United States," in Amer. Hist. Assn., *Annual Report*, 1920, p. 295.

<sup>24</sup> *South Carolina Statutes* (Cooper), IV, 37, 213; V, 223; cf. H. T. Cook, who says the Winyah Indigo Academy was opened in 1755. *Pee Dee Basin*, 77, 82.

<sup>25</sup> *Georgia Gazette* (Savannah), July 19, 1769.

<sup>26</sup> *Virginia Historical Register*, VI, 218.

<sup>27</sup> United States, *Journals of the Continental Congress*, IV, 224.

<sup>28</sup> Ramsay, *History of South Carolina*, II, 224; Washington, *Writings* (Sparks), IX, 155 & n.; Walker, C. I., *History of the Agricultural Society of South Carolina*, 3.

<sup>29</sup> See its pamphlet entitled *Address and Rules of the South Carolina Society for Promoting and Improving Agriculture*.

<sup>30</sup> *Charleston Courier*, July, 28, 1806; Walker, C. I., *History of the Agricultural Society of South Carolina*, 38, 40, 50-53, 63-65; King, *History and Culture of the Olive*, 5.

<sup>31</sup> Agricultural Society of South Carolina, *Original Communications*.

<sup>32</sup> *Kentucky Gazette* (Lexington), Dec. 15, 1787.

The Columbia Agricultural Society, of Georgetown, District of Columbia, was established in 1809. In May, 1810, it held an agricultural fair, preceding by some months the fair held by Elkanah Watson's Berkshire (Massachusetts) society, ordinarily considered the first agricultural fair in the country.<sup>33</sup> Professor Rodney H. True has pointed out that the strictly agricultural fair had its precursor in commercial fairs, of mediaeval origin, held for the sale of livestock and other products. The Strawberry Fair in St. John's Parish, Berkeley County, South Carolina, was authorized in 1723, and commercial fairs were authorized by Virginia in 1742 and by Maryland in 1751. Gradually the practice of offering prizes for superior exhibits was developed.<sup>34</sup> In the same year was established the Frederick County (Virginia) Society to Encourage Domestic Manufactures and Improve the Breed of Sheep.<sup>35</sup> By 1810 the Culpeper (Virginia) Society for the Promotion of Agriculture and Domestic Manufactures had been organized, and the Merino Society of the Middle States a year later.<sup>36</sup> There was also a Virginia State society in existence probably as early as 1811, of which John Taylor was president in 1816. In that year and in 1818 it was called the Society of Virginia for Promoting Agriculture.<sup>37</sup>

The years immediately following the War of 1812 witnessed a great awakening of interest in agricultural societies. A society formed at Pendleton, South Carolina, in 1815 has continued in existence until the present time. John C. Calhoun was an active member.<sup>38</sup> In 1816 Colonel Lewis Sanders organized a cattle show at Lexington, Kentucky, said to have been the first livestock fair west of the mountains. In 1818 was formed a Kentucky State Agricultural Society,<sup>39</sup> which could not have lasted very long, for a Kentucky Agricultural Society was organized in 1821. Two years later a Southern Agricultural Society of Kentucky was organized, with headquarters at Bowling Green.<sup>40</sup> The Cumberland Agricultural Society was formed at Nashville in 1819.<sup>41</sup> In 1817 the Albemarle County (Virginia) Agricultural Society<sup>42</sup> was organized, and in 1818 the Agricultural Society of Fredericksburg,<sup>43</sup> both destined to have a long and honorable existence. In this and the following year three State societies were formed, namely, the United Agricultural Society of Virginia, the Agricultural Society of North Carolina,

<sup>33</sup> United States Agricultural Society, *Journal*, VII, 114, 118. For the by-laws of the society, see *Agricultural Museum*, I, 8-11.

<sup>34</sup> "Early Development of Agricultural Societies in the United States," in Amer. Hist. Assn., *Annual Report*, 1920, p. 303.

<sup>35</sup> *Agricultural Museum*, I, 107.

<sup>36</sup> *Ibid.*, 81; II, 92.

<sup>37</sup> *Farmers' Register*, VIII, 577; X, 218; Morrison, "Note on the Organization of Virginia Agriculture," in *William and Mary Quarterly*, XXVI, 169.

<sup>38</sup> *Farmer and Planter*, X, 181.

<sup>39</sup> United States Agricultural Society, *Journal*, VII, 57; statement of recollections of Colonel Lewis Sanders, in *Western Farm Journal*, I, 52; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 125. See also *Kentucky Gazette* (Lexington), Dec. 1, 1819.

<sup>40</sup> *Louisville Public Advertiser* (Kentucky), Dec. 1, 1821; Jan. 9, 1822; *Argus of Western America* (Frankfort, Ky.), Aug. 20, 1823.

<sup>41</sup> *Nashville Whig*, June 26, 1819.

<sup>42</sup> See True, "Early Days of the Albemarle Agricultural Society," and "Minute Book of the Albemarle Agricultural Society," both in Amer. Hist. Assn., *Annual Report*, 1918, I.

<sup>43</sup> *Ibid.*, 283; *Farmers' Register*, V, 649.

and the South Carolina Agricultural Society. All of these organizations were transitory.<sup>44</sup>

Agricultural societies, particularly the earlier ones, suffered heavy mortality. They would start with much enthusiasm, but they were made up mainly of well-to-do planters with many other interests. There were but few working members, and after each individual had fully aired his views, there remained little of original interest. Not a few required their members in succession to provide a dinner, a practice which soon became burdensome. Some of the earlier societies charged heavy membership dues, which were allowed to fall into arrears, and in certain instances promises of premiums were not fulfilled. Not a few societies were wrecked on the rocks of partisanship. The giving of premiums to encourage a maximum product per acre ran counter to the fundamental economic tendencies in Southern agriculture. The passing of the merino mania was the occasion for the demise of some of the earlier organizations.<sup>45</sup>

Gradually experience indicated the lines of successful and durable organization. Societies became less exclusive, and dues were lowered. The program of work was broadened. Expeditions were organized to individual farms, and the agricultural practices critically discussed; plowing matches appealed to the yeoman class; and the premium list was enlarged to include products of the female members of the household. Gradually the prudish prejudice against the attendance of women at exhibitions of livestock was broken down. Some societies—for instance, the Pendleton Society, of South Carolina—acquired an element of durability through the ownership of a meeting hall or other real estate. Most of the societies continued to be general in their interests, but there developed a few specialized organizations, such as horticultural associations, horse, sheep, and silk societies.<sup>46</sup>

Probably the most important element, however, in furthering the creation of societies and in promoting durability was the association of agricultural societies with annual fairs, which in the last two decades became the principal concern. Many societies acquired the ownership of fair grounds and equipment. Fairs prospered especially in the three livestock States, Kentucky, Tennessee, and Missouri. As early as 1841 twelve county fairs were reported in Tennessee,<sup>47</sup> and in 1859 the list included State and divisional fairs.<sup>48</sup> In 1856 twenty-one fair organizations were reported in Kentucky, some representing a single county and others groups of counties. Nearly every one owned extensive fair grounds and improvements.<sup>49</sup> In 1855 thirteen county fairs were held in Missouri, in addi-

<sup>44</sup> Morrison, "Note on the Organization of Virginia Agriculture," in *William and Mary Quarterly*, XXVI, 170; *Farmers' Register*, I, 147; South Carolina Agricultural Society, *Report of the Curators*, Dec., 1819, pp. 33, 44; *Southern Agriculturist*, XII, 526; cf. South Carolina Agricultural and Mechanical Society, *History of the State Agricultural Society, etc.*, 1-6.

<sup>45</sup> *Farmers' Register*, I, 147, 200; VI, 705; X, 237; *Franklin Farmer*, II, 31; *Southern Planter*, V, 248; VII, 14; XII, 50; *Southern Agriculturist*, VIII, 113, 567.

<sup>46</sup> *Ibid.*, IX, 66; *North Carolina Planter*, II, 355; *Farmer and Planter*, X, 181; *Franklin Farmer*, II, 12; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 127, 312, 314; *Southern Planter*, III, 153.

<sup>47</sup> *Agriculturist*, II, 214.

<sup>48</sup> United States Agricultural Society, *Journal*, VII, 71, 356.

<sup>49</sup> *Western Farm Journal*, II, 9.

tion to the State fair at Boonville and the fair of the St. Louis Agricultural and Mechanical Association, which was said to have the finest fair grounds in America.<sup>50</sup>

Fairs were developed somewhat more slowly in the eastern seaboard States and in the lower South. In 1859 three local fairs were reported for Maryland, besides the State fair at Baltimore, held annually for the past eleven years.<sup>51</sup> Probably there were others not reported. In the same year seven were reported as planned for Virginia, in addition to the fairs held by the State Agricultural Society, the State Central Society, and the Union Society of Virginia and North Carolina.<sup>52</sup> There were four local fairs in North Carolina, besides the State fair at Raleigh.<sup>53</sup> In 1860 there were twelve district fairs in South Carolina, besides two of State-wide importance.<sup>54</sup> Fairs appear to have been less numerous in the lower South, although available reports may not be complete. In Georgia a fair was organized at Macon as early as 1831. The Southern Central Agricultural Society held fairs annually from 1846 to 1849 at Stone Mountain, in 1850 at Atlanta, and in 1851 at Macon. In 1858 a fair was reported at Savannah under the auspices of Chatham and Effingham counties. In the same year Mississippi reported eight local fairs besides the division fair at Jackson. In Alabama fairs were held in 1859 by the State Agricultural Society, at Montgomery, and by the North Alabama Agricultural and Mechanical Association, at Decatur.<sup>55</sup>

In all of the States except probably Arkansas and Texas, State-wide agricultural societies were formed, frequently providing for representation from local societies. Most of these State organizations proved unstable. Thus, Virginia formed its third State society in 1845, the two preceding ones having been but transitory. The new organization lived scarcely a year, and was followed by another association formed in 1850. Partly by means of State financial aid and extensive support by the railways it developed by 1853 an annual State fair of respectable extent and considerable resources.<sup>56</sup> It soon encountered a formidable rival in the Union Society of Virginia and North Carolina, which developed an annual fair at Petersburg.<sup>57</sup> Maryland established a State society in 1840.<sup>58</sup> After the demise of the State organization formed in 1818-19, North Carolina appears to have done without a State society until 1852. The organization held a State fair in 1853 and annually thereafter until the Civil War.<sup>59</sup> In 1839 the South Carolina State Agricultural Society was again brought to life, and held exhibits for a number of years. In the late fifties it was revived, and developed a credit-

<sup>50</sup> *Valley Farmer* (St. Louis), VII, 371; XII, 5.

<sup>51</sup> United States Agricultural Society, *Journal*, VII, 57, 328; *Niles' Register*, LXXIV, 161.

<sup>52</sup> United States Agricultural Society, *Journal*, VII, 71, 365.

<sup>53</sup> *Ibid.*, 67, 348.

<sup>54</sup> *Farmer and Planter*, XI, cover page opposite p. 225.

<sup>55</sup> *Macon Telegraph*, quoted by *The Democrat* (Huntsville, Ala.), Dec. 16, 1830; United States, *Report of the Commissioner of Agriculture*, 1875, p. 439; United States Agricultural Society, *Journal*, VII, 49, 54, 62, 285.

<sup>56</sup> *Southern Planter*, V, 41, 201; IX, 86; X, 26, 59, 124; XII, 81; XIV, 274; XVI, 280; Virginia State Agricultural Society, *Journal of Transactions*, I, 92; *idem*, *Annual Report of the President and Executive Committee*, 1856-1857, p. 2.

<sup>57</sup> *Southern Planter*, XIV, 241.

<sup>58</sup> *Farmer's Book, or the Western Maryland Farmer*, I, 114.

<sup>59</sup> North Carolina State Agricultural Society, *Transactions*, 1857, p. 111; *Farmer's Journal*, II, 240.



able State fair.<sup>60</sup> After the passing of the earlier State societies in Kentucky, already mentioned, a new one was formed in 1838, but did not live long. A stronger organization was achieved in 1856 under State financial aid.<sup>61</sup> Tennessee formed a State organization in 1838, with the *Agriculturist and Journal of the State and County Societies* as its official organ.<sup>62</sup> The State Agricultural Society of Alabama was formed in 1841, adopting the *Alabama Rural Economist* as its official organ. In the late fifties it was maintaining a State fair at Montgomery. Mississippi established a State society in 1840,<sup>63</sup> and Florida had one in 1836.<sup>64</sup> The preceding year the Agricultural Society of Louisiana purchased a model farm, and in 1841 the Agricultural Association of Louisiana was formed.<sup>65</sup> There was a great deal of inertia, however, in the various States, and the societies of many States languished for a number of years,<sup>66</sup> though revived toward the close of the period.

In view of the prevailing *laissez faire* attitude in legislation, it is notable that in the last two decades of the period there was a tendency for State legislatures to come to the aid of agricultural societies and fair associations. In 1860 Maryland appropriated funds to relieve the deficit of its State society and to aid its annual exhibitions. North and South Carolina, Georgia, Alabama, and Missouri appropriated funds in support of State societies and annual State fairs.<sup>67</sup> North Carolina, moreover, allowed \$50 for each new local society formed in the State.<sup>68</sup> Tennessee and Mississippi established State agricultural bureaus, charged not only with the supervision of State fairs but also with encouraging the formation of local agricultural societies and the holding of local fairs by distributing special subsidies. The Kentucky State Agricultural Society exercised somewhat similar functions under legislative authority.<sup>69</sup>

In 1853 the State and local agricultural societies of the various Southern States were federated by the formation of the Agricultural Association of the Slaveholding States, at Montgomery, Alabama. Although the purposes of this body were primarily agricultural, it became essentially a part of a larger movement for the consolidation of Southern economic interests.<sup>70</sup>

A number of Southern leaders were active in promoting the United States Agricultural Society, formed first in 1841 and revived in 1852. In the late years

<sup>60</sup> *Farmers' Register*, VIII, 621; *Southern Agriculturist*, new series, IV, 387; *Farmer and Planter*, VIII, 46, 243, 290; X, 178.

<sup>61</sup> *Franklin Farmer*, II, 177; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 5-8, 10, 20-23, 63.

<sup>62</sup> *Agriculturist*, I, 15.

<sup>63</sup> *Ibid.*, III, 2, 55; United States Agricultural Society, *Journal*, VII, 48.

<sup>64</sup> *Farmers' Register*, III, 567.

<sup>65</sup> *Southern Agriculturist*, VIII, 165; *Agriculturist*, II, 212.

<sup>66</sup> United States, Patent Office, *Annual Report*, 1849, *Agriculture*, 146; *De Bow's Review*, IV, 421; XXVI, 93; *Southern Cultivator*, III, 88; *Farmers' Register*, I, 200.

<sup>67</sup> *Maryland Session Laws*, 1860, ch. 37; *Carolina Cultivator*, I, 306; United States Agricultural Society, *Journal*, VIII, 178, 181; *Valley Farmer* (St. Louis), V, 81, 95, 279; VII, 153; *Alabama Session Laws*, 1856, p. 343; *South Carolina Session Laws*, 1855, p. 402; *Missouri Session Laws*, 1855, p. 1.

<sup>68</sup> *North Carolina Planter*, III, 25.

<sup>69</sup> Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, pp. 7-30; United States Agricultural Society, *Monthly Bulletin*, I, 90; Kentucky State Agricultural Society, *Report*, 1856-1857, *passim*; *Mississippi Session Laws*, 1857, p. 44.

<sup>70</sup> *De Bow's Review*, XIV, 510. See below, pp. 924-927.

of the period the organization held its exhibitions in at least two Southern cities, Richmond and Louisville.<sup>71</sup> The rising tide of sectionalism, however, gradually chilled Southern interest. Of the 399 members in 1853, only 69 were from the South, mostly from Maryland or the District of Columbia. Three years later only 36 out of 585 members were from the South.<sup>72</sup>

#### AGRICULTURAL JOURNALS

The first purely agricultural paper<sup>73</sup> in the United States, the *Agricultural Museum*, was established at Georgetown, District of Columbia, in 1810, as the organ of the Columbia Agricultural Society. It lasted but two years. In 1819 the *American Farmer*, the first agricultural periodical to be published for a considerable period, was established at Baltimore. From 1834 to May, 1839, it was issued as the *Farmer and Gardener*, after which it was again published under its original name slightly varied. In 1821 a prospectus was issued for a *Planters' Magazine* to be published in Huntsville, Alabama, but the promoters were able to obtain only one fourth as many subscribers as were considered necessary.<sup>74</sup> In 1822 the *Southern Agriculturist, Horticulturist, and Register of Rural Affairs* was begun at Charleston, South Carolina. The title was changed to the *Southern Cabinet* for the year 1840, but thereafter publication under the earlier name was continued for six years.

The decade beginning with 1830 witnessed the establishment of more than a dozen journals, and from this time until the Civil War they continued to spring up like mushrooms. A tentative list of Southern agricultural journals<sup>75</sup> contains names of upwards of eighty journals published before 1860. Supplementary titles found by the present writer indicate that probably not less than a hundred agricultural journals were initiated in the South. In addition to the specialized journals, a good many weekly and daily papers carried agricultural columns.<sup>76</sup> In 1853 the *Journal of the United States Agricultural Society* listed a total of forty-three agricultural papers in the United States, of which ten were in eight Southern States.<sup>77</sup> In 1860 the total circulation of agricultural papers in the free States was estimated at 233,600, and that of the slave States at 32,250.<sup>78</sup> Of the numerous journals undertaken, however, scarcely more than a dozen ran more than five years, and the majority less than three years. In addition to the ordinary causes of failure, excessive competition was at times a factor. About 1839 there were four agricultural journals published in Tennessee; in a short time all had failed. Undoubtedly the principal causes were the general lethargy

<sup>71</sup> *Farmers' Register*, X, 19; *Southern Planter*, II, 93; United States Agricultural Society, *Journal*, I, No. 1, p. 5; V, 235; VI, 43.

<sup>72</sup> *Ibid.*, I, Nos. 3-4, pp. 271-279; III, 247-261.

<sup>73</sup> Barnett, "The Agricultural Museum: An Early American Agricultural Periodical," in *Agricultural History*, II, 99-102.

<sup>74</sup> See *Alabama Republican* (Huntsville), Nov. 9, 1821; Mar. 29, 1822.

<sup>75</sup> Compiled some years ago by Stephen G. Stuntz, a cataloger and bibliographer in the Library of Congress. His list is in the Library of the United States Department of Agriculture.

<sup>76</sup> *Farmer and Planter*, X, 223.

<sup>77</sup> I, No. 2, p. 144.

<sup>78</sup> *Farmer and Planter*, XI, 20. A few doubtful enterprises recently initiated were not included.

and the large proportion of Negroes and of illiterate poor whites occupying non-commercial farms.<sup>79</sup>

#### AGRICULTURAL EDUCATION AND RESEARCH

Except for the informal experimentation of individual farmers and planters and the educational influence of agricultural societies and journals, there was but slight development of facilities for agricultural education. In fact, among a large proportion of the farmers and planters there was an "obstinate prejudice . . . against every thing like *scientific farming*."<sup>80</sup> In 1845 this distrust was voiced in the *Southern Planter* as follows:<sup>81</sup>

"Mr. Justus Liebig is no doubt a very clever gentleman and a most profound chemist, but in our opinion he knows about as much of agriculture as the horse that ploughs the ground, and there is not an old man that stands between the stils of a plough in Virginia, that cannot tell him of facts totally at variance with his finest spun theories. The same thing is true pretty much of the balance of the agricultural philosophers; they are smart men, and in the multiplicity of their guesses they may strike right, but we hardly esteem their works, with one or two exceptions, worth the notice of the practical farmer."

This attitude was not without justification. Theoretical agriculture was just beginning to sever its connection with speculative philosophy. Agricultural experimentation was mainly unscientific in method. So-called authorities solemnly announced theories that appear almost ridiculous to-day.<sup>82</sup>

The distrust aroused by the conflict of authority was increased by the farmers' sad experience with agricultural "crazes" such as the merino, Berkshire, and silk crazes, and by the less defensible agricultural humbugs, some of which profited by the insanity of a "craze," and also by puffs in agricultural papers. People paid fancy prices for spring wheat, Eastern Shore beans, millet, Russian turnips, Egyptian wheat, and Chinese mulberries; and for so-called pure bred stock that proved on delivery to have no special excellence. An Irishman sold for high prices a "patented" method of raising corn, by which two laborers without horse or plow could make a crop of 2,500 bushels a year. The plan consisted in laying off a field in squares of nine feet, of which only one square should be planted each year. He argued that the thickly standing corn on one square, wonderfully nourished by the surrounding squares, would produce as much corn as if the other eight squares had also been planted by usual methods.<sup>83</sup>

In the last three decades of the period, however, there was a gradual accumulation of interest in agricultural education and research. One manifestation was the movement for geological and agricultural surveys. As early as 1825 the North Carolina Board of Agriculture published a report on the geology of North

<sup>79</sup> *Farmer and Planter*, XI, 20; *Farmer's Advocate*, III, 378.

<sup>80</sup> Minor, F., *Address delivered before the Agricultural Society of Albemarle*, Nov. 1, 1845, p. 16.

<sup>81</sup> V, 23.

<sup>82</sup> For instances, see *Southern Planter*, VIII, 248; *Southern Agriculturist*, XI, 413; Virginia, Board of Agriculture, *Report* (*House Journal and Documents*, 1842-43, Doc. 12), p. 63; *Farmer's Advocate*, I, 93.

<sup>83</sup> *Farmers' Register*, IV, 558; VI, 47-52, 212; VII, 190, 432, 572-574; Washington, *Writings* (Sparks), XII, 332. See A. H. Cole's more extensive treatment, "Agricultural Crazes," in *American Economic Review*, XVI, 622-639. See also below, p. 847.

Carolina, by Professor Olmsted.<sup>84</sup> In 1826 Lardner Vanuxem, geologist employed by South Carolina, made a catalog of the mineral deposits in four counties.<sup>85</sup> By 1835 the legislatures of Maryland, Virginia, North and South Carolina, Georgia, Kentucky, and Tennessee had made provisions for surveys of mineral resources,<sup>86</sup> which had but little relation to agricultural resources. In 1832 Dr. Troost, the State geologist of Tennessee, began an analysis of the various soils of the State.<sup>87</sup> According to De Bow, the Louisiana legislature, several years previous to 1848, appropriated money for a botanical and geological survey, but the results were never published.<sup>88</sup> In 1835 Maryland provided that the State geologist analyze soils left at his office. The Georgia act of 1836 also contemplated a survey of soils in connection with the geological survey, and the State geologist, John Ruggles Cotting, undertook to make a "complete Geological and Agricultural Map of the State." Six years later a report on the soils and fertilizer requirements of the State of Georgia was published, and in 1860 Joseph Jones made a report dealing largely with the soils and the lime and marl deposits of the State.<sup>89</sup>

The example of the strictly agricultural surveys made in England aroused interest in similar projects in this country. As a result of agitation begun as early as 1835 the South Carolina legislature made provision in 1842 for an agricultural survey, and Edmund Ruffin was invited to take charge of it.<sup>90</sup> Ruffin continued with the project about a year, during which the survey consisted in the collection of general descriptive information concerning agriculture in the various counties and the location and analysis of marl deposits. Later the project was continued for some years by Tuomey, essentially as a geological survey.<sup>91</sup> In 1852 North Carolina made provision for an agricultural survey, which was entrusted to Dr. Ebenezer Emmons, who had carried on a similar project in New York State. In the same decade Alabama, Mississippi, and Arkansas developed geological and agricultural surveys. That of Mississippi was subsequently carried on by the well-known Eugene Hilgard.<sup>92</sup>

While the chemical analysis of soils in a number of the States was a function of the State geologists, certain States made provision for official agricultural chemists. By 1851 such action had been taken by Maryland, North Carolina, Alabama, Mississippi, and Virginia.<sup>93</sup>

<sup>84</sup> *Report on the Geology of Western North Carolina* (N. C., Bd. of Agric., *Papers*, Pt. I).

<sup>85</sup> South Carolina, Geological and Agricultural Survey, *Report* (Tuomey, 1844), p. iv.

<sup>86</sup> *Maryland Session Laws*, 1833, ch. 138; *Farmers' Register*, I, 118; II, 711; cf. Kentucky, Geological Survey, *Report on the Geological Reconnaissance [sic] of Kentucky* (Mather, 1838).

<sup>87</sup> Tennessee, Geological Survey, *First Biennial Report* (Troost, 1833), p. 304.

<sup>88</sup> *De Bow's Review*, VIII, 34.

<sup>89</sup> *Farmer and Gardener*, I, 22; *Southern Silk Journal and Farmers' Register*, I, 49; Cotting, *Essay on the Soils and Available Manures of Georgia*, p. iv; *First Report to the Cotton Planters' Convention of Georgia on the Agricultural Resources of Georgia*.

<sup>90</sup> *Southern Agriculturist*, VIII, 569; new series, III, 50; *Southern Cabinet*, I, 333; *Farmers' Register*, X, 453-456; Bachman, *Inquiry into the Nature and Benefits of an Agricultural Survey of South Carolina*, 1; South Carolina, Geological and Agricultural Survey, *Report* (Tuomey, 1848), Pref., p. i.

<sup>91</sup> *Idem*, Agricultural Survey, *Report* (Ruffin, 1843), *passim*; *idem*, *Supplemental Report* (Ruffin, 1844), p. 57; *Carolina Planter* (1844-5), I, 167; South Carolina, Geological and Agricultural Survey, *Report* (Tuomey, 1848), Pref., p. i.

<sup>92</sup> *Farmer's Journal*, I, 29; Allston, *Essay on Sea Coast Crops*, 6; Alabama, Geological Survey, *First Biennial Report* (Tuomey, 1849); Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), p. xiii; *ibid.* (Hilgard, 1858), p. 17.

<sup>93</sup> *Farmer and Planter*, II, 76, 94; III, 24; *Southern Planter*, IX, 93, 124; X, 95.

Interest was gradually aroused also in general agricultural education. In 1822 the Albemarle (Virginia) Agricultural Society appropriated \$1,000 for the establishment of a professorship of agriculture at the University of Virginia, calling on other agricultural societies to contribute.<sup>94</sup> In 1824 a botanical, agricultural, and medical garden was established at Lexington, Kentucky, in connection with Transylvania University.<sup>95</sup> In 1829 a writer proposed that the Agricultural Society of South Carolina establish an agricultural institute. He suggested the employment of three lecturers—one on surveying, embanking, and draining lands; a second on agricultural chemistry; and a third on livestock management and other practical aspects of farming. He proposed that the lectures be given in the summer months and that in winter students be required to reside on plantations and study practical management under the guidance of experienced agriculturists.<sup>96</sup> These early proposals were followed by occasional protests against the prevailing classicism in education, by publication of agricultural manuals, introduction of books on agriculture into the public schools, development of agricultural academies and colleges, and proposals for the establishment of agricultural professorships.<sup>97</sup> When the distribution of the Federal Treasury surplus was under consideration in 1836, a memorial was sent to the Maryland legislature urging the expenditure of a part of the State's expected share in the establishment of "pattern" farms and agricultural schools, and in subsidizing the State and county agricultural societies. In 1837 the committee on agriculture of the Maryland House of Delegates was instructed to inquire into the expediency of establishing technical schools in the various counties.<sup>98</sup> Two years later the Kentucky agricultural society projected an agricultural school and arranged to incorporate a stock company to purchase and equip a school farm to be worked by the students on a part time arrangement.<sup>99</sup>

In spite of these proposals, it was declared as late as 1842 that although the legislatures of some of the States had made "feeble attempts" to establish agricultural colleges, no school of the kind desired was yet in existence in America. In that year, however, an agricultural professorship was established at Union University, a Baptist institution at Murfreesborough, Tennessee. It was probably shortly after this time that such a professorship was established in the South Carolina College. In the following year an agricultural school at Elm Crag, Tennessee, opened with six students. It was soon given the name Franklin College.<sup>100</sup> In 1845 projects were under consideration in Virginia for the establishment of "Manual Labor Schools" under the auspices of the State agricultural society, and also for a private agricultural college in Buckingham. About the same time the proposal for an agricultural professorship at the University

<sup>94</sup> True, "Early Days of the Albemarle Agricultural Society," in Amer. Hist. Assn., *Annual Report*, 1918, I, 253; Madison, *Letters and Other Writings*, III, 287.

<sup>95</sup> Collins, L., *Historical Sketches of Kentucky*, I, 31.

<sup>96</sup> *Southern Agriculturist*, II, 49.

<sup>97</sup> For instances, see *ibid.*, VIII, 343; IX, 354-360, 395; new series, III, 404; *Farmers' Register*, VI, 199; *Dollar Farmer*, I, 140; II, 12; *Southern Planter*, III, 16.

<sup>98</sup> *Farmer and Gardener*, III, 297, 321; IV, 289.

<sup>99</sup> *Niles' Register*, LVII, 288.

<sup>100</sup> *Agriculturist*, III, 3, 189; IV, 11; V, 121; *Southern Planter*, VIII, 161.

of Virginia was revived. A decade later Philip St. George Cocke offered an endowment of \$20,000 for the purpose, but subject to reservation of the right of the donor to select the incumbent, terms which were declined by the Board of Visitors. The fund and other gifts were diverted to the establishment of a school of agriculture at the Virginia Military Institute.<sup>101</sup> In 1853 a professorship of agricultural chemistry was established at the University of North Carolina, and in 1854, an endowed agricultural professorship at the University of Georgia. In the same year Tennessee provided for the establishment of a State agricultural college.<sup>102</sup> A year earlier the editor of the North Carolina *Farmer's Journal* announced the prospective opening of an agricultural school at Bath, in connection with an experimental farm of thirty acres, on which, he was careful to state, the students would not be required to work.<sup>103</sup> The Maryland Agricultural College was established in 1858. In the same year an agricultural school was said to be "under way" at Griffin, Georgia, and it was announced that an endowment had been given for an agricultural professorship in the Episcopal University of the South, to be located in Tennessee.<sup>104</sup> In the late fifties the South Carolina State Agricultural Society was urging the establishment of an agricultural college independent of other institutions, and a similar project was being considered in Virginia. There was also a movement to establish a Southern Central Agricultural College under the auspices of the Agricultural Association of the Slaveholding States.<sup>105</sup>

These various movements all reflected the increasing interest in agricultural improvement, an interest which was beginning to bear fruit in noticeable progress along various lines in many parts of the South.<sup>106</sup>

#### FARM IMPLEMENTS AND MACHINERY

Most of the implements used on Southern plantations were the products of plantation blacksmiths or of neighborhood artisans. Consequently there was but little standardization,<sup>107</sup> and the efficiency of the implements of a neighborhood was largely dependent on the skill of its blacksmith, a quality frequently sadly lacking. The common implements of husbandry were usually clumsy and rude in the extreme.<sup>108</sup> The lack of standardization was partly responsible for the slow adoption of improved types. In each community the adoption of a new device or model required the development of new forms and skill in manufacture, involving difficulties almost equal to the making of the original in-

<sup>101</sup> *Southern Planter*, III, 14; V, 49, 103, 142, 149; VI, 51, 60; XVII, 178, 708; XVIII, 3, 6; United States Agricultural Society, *Journal*, VII, 381.

<sup>102</sup> Allston, *Essay on Sea Coast Crops*, 6; Georgia University, *Endowment of the Terrell Professorship of Agriculture*, 4; *De Bow's Review*, XVIII, 345.

<sup>103</sup> *Farmer's Journal*, II, 49.

<sup>104</sup> United States Agricultural Society, *Journal*, VII, 187, 380; Kentucky State Agricultural Society, *Report*, 1858-1859, p. 136; *Farmer and Planter*, IX, 66.

<sup>105</sup> *Ibid.*, V, 19; IX, 57; *Southern Planter*, XVI, 43; *North Carolina Planter*, I, 22.

<sup>106</sup> For general recognition of this progress, see for instance, *Southern Agriculturist*, II, 357; *American Farmer*, 1 series (1822-31), IV, 347; V, 201; IX, 81; X, 273; XII, 183; *Southern Cultivator*, II, 31; III, 88, 100; VI, 67; *Soil of the South*, VI, 259; *Cultivator*, I, 83; *De Bow's Review*, XIV, 508; XXVI, 612-614.

<sup>107</sup> *American Agriculturist*, II, 49; III, 247; *American Farmer*, 1 series, XV (1833-4), p. 307.

<sup>108</sup> *Southern Cultivator*, II, 98; *Southern Agriculturist*, new series, III, 183.

vention. It was frequently impossible for planters who desired more elaborate implements or designed improvements to get them put into execution by the clumsy neighborhood artisans.<sup>109</sup>

Toward the close of the period Richmond and Louisville were becoming important centers for the manufacture and distribution of factory-made implements, and during the last ten or fifteen years before the Civil War Northern-made implements and machinery were being introduced by Southern merchants. For the most part, however, planters and farmers were compelled to order from Northern dealers, the more unscrupulous of whom sent out "miserable cast plows," and other imperfect implements manufactured expressly for the Southern trade.<sup>110</sup> As Thomas Affleck complained, "If we order them direct, we are buying 'a pig in a poke.'" <sup>111</sup>

By no means all the inventive activity was confined to the North. Mr. A. J. Morrison has collected from the Patent Office a list of some twenty inventions of agricultural implements patented from Virginia before 1821. They included a corn sheller, a straw cutter, threshing machines, a horse power, a rice huller, a hemp and flax breaker, a wheat cutter, a grain separator, a cultivator, a clover seed gatherer and clover seed cleaners, a wheat fan, a corn and cob grinder, plows, and a land clearing machine.<sup>112</sup> In the year 1859 alone about one hundred inventions of farm implements and machinery by Southerners were patented.<sup>113</sup> The activity of Southern mechanics in improving rice mills and cotton gins and in developing scrapers and other labor-saving cultivators for cotton has already been mentioned. Particularly notable for inventiveness was the McCormick family, of Rockbridge County, Virginia. Robert McCormick invented a reaping machine on the vertical cutting plan as early as 1816, which proved defective. He also invented a threshing machine and a hydraulic hemp-breaking machine. His famous son, Cyrus McCormick, substituting the horizontal for the vertical motion, became the successful inventor of the harvester. Cyrus McCormick and Stephen McCormick also developed improved types of plows.<sup>114</sup>

In spite of the difficulties mentioned there was considerable progress in adoption of improved implements of husbandry, stimulated in part by the rise in the cost of slave labor.<sup>115</sup> At the beginning of the nineteenth century clumsy wooden plows that merely scratched the surface, crude harrows, sickles, scythes, and hoes, and occasionally a rude threshing machine constituted the mechanical basis of husbandry.<sup>116</sup> The next sixty years witnessed the widespread substitution of the cradle for the scythe and sickle; the sporadic adoption of mechanical reapers;

<sup>109</sup> For a statement of these difficulties, see *American Farmer*, 1 series, XV (1833-4), p. 307.

<sup>110</sup> Newton, *Address before the Virginia State Agricultural Society*, Feb. 19, 1852, p. 5; *Dollar Farmer*, III, 132; *Southern Agriculturist*, new series, III, 183; *Southern Cultivator*, I, 38; IV, 39; XVI, 177; *De Bow's Review*, VI, 131.

<sup>111</sup> *American Agriculturist*, III, 247.

<sup>112</sup> "Virginia Patents," in *William and Mary Quarterly*, 2 series, II, 149-153.

<sup>113</sup> *Farmer and Planter*, XI, 306.

<sup>114</sup> Hogg, "Sketch of the Life of Cyrus H. McCormick," in *Southern Historical Magazine*, I, 264-268.

<sup>115</sup> *Southern Agriculturist*, XII, 169; La Rochefoucauld, *Travels*, III, 194.

<sup>116</sup> *Bland Papers* (Campbell), II, 18; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 51-52, 63; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 147.

great improvements in plows; the substitution of horse-drawn tillage implements such as cultivators, scrapers, sweeps, and skimmers for the hoe; the adoption of mechanical seeders, horserakes, and threshing machines; and the improvement of machinery for cutting straw, grinding corn, and milling small grain.<sup>117</sup> About 1855 a veteran farmer, looking back over a period of nearly eighty years, expressed the opinion that the amount of labor performed by a hand in Georgia had been nearly doubled.<sup>118</sup>

Progress, however, was greatest on large plantations where the owners and managers read agricultural literature or travelled widely. The great majority of small farmers and, indeed, many of the middle-class planters were very slow to adopt improved implements.<sup>119</sup> Northern writers customarily attributed this lack of progress to slavery, and occasionally planters protested that they found it impossible to trust delicate and costly implements to the carelessness of slaves.<sup>120</sup> This, however, is but a partial explanation. The lack of local markets where farmers might see and purchase improved implements; the great ignorance of the small farming class; prejudice and aversion to innovations; and the ignorance and stupidity of overseers, even on large plantations;—these conditions were associated with certain deeper economic causes, such as the low value of labor during a part of the period and high interest rates; the great scarcity of money capital among the numerous self-sufficing farmers of the interior districts; and the migratory character of Southern agriculture.

At the beginning of the post colonial period plows were extremely clumsy, with wooden moldboards, sometimes shod or plated with iron strips. About the close of the eighteenth century Thomas Jefferson worked out mathematically the shape and angle of the moldboard and introduced the practice of having it cast entirely of iron. It is probable that his ideas were obtained from the Scotch plows for which the shape of the share and moldboard had become standardized as a result of the genius of James Small.<sup>121</sup> A decade earlier Arthur Young had sent Washington two "excellent" plows, which would turn a 9-inch furrow from 4 to 6 or 8 inches deep when drawn by two horses or oxen abreast, "without a driver." They were probably made of iron, for Young wrote that if the General "approve better of wooden ploughs" he would send one, though they would "admit of scarcely any alteration; if once twisted or drawn out of the right line, new ones must be made."<sup>122</sup>

During the early decades of the nineteenth century inventors were busy improving the shape and structure of the plow.<sup>123</sup> The Albemarle Agricultural Society, in Jefferson's home county, instituted dynamometer tests of certain

<sup>117</sup> See Breckenridge's prize essay on the "Use and Assistance of Mechanics to Agriculture," in Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 120, 122; Virginia, Board of Agriculture, *Report (House Journal and Documents)*, 1842-43, Doc. 12), p. 63.

<sup>118</sup> *Southern Cultivator*, III, 100. See also *American Agriculturist*, II, 302.

<sup>119</sup> *Cultivator*, IX, 95; *Southern Cultivator*, IV, 39; VI, 37; *American Agriculturist*, II, 365.

<sup>120</sup> *Ibid.*, III, 247; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., p. 18; *Southern Cultivator*, VI, 2.

<sup>121</sup> Jefferson, *Writings* (Washington), IV, 147; True, "Early Days of the Albemarle Agricultural Society," in Amer. Hist. Assn., *Annual Report*, 1918, I, 246; *Farmer and Planter*, VIII, 245.

<sup>122</sup> Washington, *Papers*, Vol. 237, Nos. 31868-31869 (Manuscripts, Library of Congress).

<sup>123</sup> Concerning its evolution, see Bidwell & Falconer, *Agriculture in the Northern United States*, 208-210.



plows developed in Virginia, including the McCormick plow. Various local plowmakers in other parts of the South developed a considerable reputation for the excellence of their products.<sup>124</sup> Edmund Ruffin noted a great improvement in the plows and plowing of Virginia during the twenty-five years preceding 1842. Concerning the plows in use before the beginning of that period, he declared:<sup>125</sup>

"Two-horse ploughs were rarely used, and only on the few richest and best cultivated farms, . . . On the far greater number of farms there was neither a two-horse plough, nor a mould-board plough for a single horse. Ninety-nine acres in the hundred were broken up by one-horse ploughs; and half of the whole quantity with the trowel-hoe, or fluke-hoe plough, having cutting wings to the share on both sides alike, and no mould-board. The ploughing was rarely deeper than three inches (often less)."

On the other hand, by the close of the period plows of good construction were widely used. In many localities, however, plows of the crudest character continued to be employed until the Civil War. Even at the close of the period most of the plows in use were of local manufacture. The great majority were made of rolled iron, although some were of cast iron, against which there was a widespread prejudice. Many were exceedingly clumsy, unscientific in shape, and capable of only scratching the soil.<sup>126</sup>

There were numerous types; bar-shares, shovels, flukes, single-coulters, bull-tongues, dagon plows, scooters, nullifiers, double half-shovels, trowel plows, and buzzard's wings. The most prevalently used types were the bull-tongues, shovels, dagons, scooters, and single-coulters. The bull-tongue plowshare closely resembled in shape the tongue of the quadruped whose name it bore, consisting of a long, narrow, thick piece of iron, slightly curving forward at the point. By some these plows were considered superior to ordinary turning plows for breaking new ground full of roots and stumps. The scooter, a variety of the bull-tongue plow, permitted only a scratching of the surface.<sup>127</sup> The shovel plow was much like the letter V in shape, ridged in the middle, the wings of the shovel sloping toward the rear of the plow. It was pulled broad-side foremost through the ground—an operation characterized as "much like dragging a cat by the tail."<sup>128</sup> The single-coulter plow closely resembled the shovel, but with the addition of a coulter. The dagon plow was a crude type of turning plow. It is described as "the same as the Dutch bull-plow of the north, with a wooden mold-board, and wrought iron share." One of the best types of turning plows was the Allen plow. This was a "wrought-iron plow, with a mold-board, land-side, and standard and point, all connected, forming but one piece." The moldboard, which was set at an angle of about 40 degrees with the line of the beam, was a piece about one fourth of an inch in thickness, welded to the standard, without braces or other

<sup>124</sup> True, "Early Days of the Albemarle Agricultural Society," in *Amer. Hist. Assn., Annual Report*, 1918, I, 256; *Farmer and Planter*, XI, 247; Virginia State Agricultural Society, *Journal of Transactions*, I, 50.

<sup>125</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 63.  
<sup>126</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 59; *American Agriculturist*, III, 247; *Country Gentleman*, III, 263; *Southern Cultivator*, II, 98; IV, 39; V, 90; XV, 92.

<sup>127</sup> *American Agriculturist*, III, 305; *Southern Agriculturist*, IV, 5; *Southern Cultivator*, V, 10; Bek, "The Followers of Duden," in *Missouri Historical Review*, XVI, 296-303.

<sup>128</sup> *American Agriculturist*, II, 49; *Cultivator*, IX, 93.

support. These plows were from 6 to 10 inches wide, furrow-wise, and were used with one or two horses or mules as the stiffness of the soil required. They cost only from \$3 to \$5, but were capable of lasting but one season.<sup>129</sup> Among the widely used plows of Northern manufacture were Barnaby and Mooer's "Eagle" plows, and Hall's "Peacock" plows. The best of these opened a furrow 6 to 7 inches deep and 12 or 14 inches wide. Other widely used plows were the improved Davis plows, the McCormick plows, the Freeborn plows, and the Loudoun bar-shares.<sup>130</sup>

There were also numerous kinds of plows for specialized uses, including sub-soil plows; paring plows for skimming turf lands preparatory to burning; two-share and three-share plows for cultivation; and side hill, or swivel, plows, so constructed that the moldboard might be instantly changed from one side to the other in order to permit horizontal plowing on hillsides in both directions.<sup>131</sup> As already noted, Thomas Mann Randolph, of Virginia, was credited with first introducing horizontal plowing by the development of a hillside plow, although the idea had been brought back from France by Thomas Jefferson. Jefferson gave credit to Randolph for the introduction of the practice.<sup>132</sup> Two other Virginians, Cyrus McCormick and Captain Donald, were responsible for improved models of the hillside plow.<sup>133</sup> In breaking the heavy prairie sod of Texas, large wheel plows were used capable of turning a very wide furrow, sometimes having rods attached to the moldboard after the fashion of modern rod-breaker plows.<sup>134</sup>

In 1842 Edmund Ruffin declared that a quarter of a century earlier the harrow was hardly known in Virginia, the only approach to it being a "drag" with large wooden teeth, used to smooth wheat land after the seed had been covered with a trowel-plow. At the time he wrote, farmers had come to consider the harrow indispensable. Gradually improved types were developed, and late in the period revolving harrows made their appearance.<sup>135</sup>

For cultivating corn and cotton, ordinary plows were used more extensively than cultivators of special design. Every planter or overseer had his own theory or prejudice concerning the best plow to be employed in cultivation.<sup>136</sup> In the rice and sea-island cotton districts, as we have noted, the hoe was virtually the only implement used for cultivation, but there were even some intelligent upland cotton planters who employed the hoe exclusively. According to Solon Robinson, Governor Hammond, of South Carolina, cultivated 570 acres of cotton entirely by means of hoes.<sup>137</sup>

In the later decades special cultivators began to be widely adopted. They

<sup>129</sup> *American Agriculturist*, II, 49.

<sup>130</sup> *Ibid.*, 63; III, 247, 305-306; *Southern Cultivator*, I, 38; III, 91; IV, 39; V, 60, 161; *American Farmer*, 1 series, XV (1833-4), p. 35; *Farmer and Gardener*, II, 114.

<sup>131</sup> *Southern Planter*, V, 145; *De Bow's Review*, VI, 131; *American Farmer*, 1 series, XV (1833-4), p. 82; *Southern Cultivator*, III, 183.

<sup>132</sup> Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), p. 153; Sorsby's "History of Horizontal Culture," in North Carolina State Agricultural Society, *Transactions*, 1857, p. 36.

<sup>133</sup> *Farmers' Register*, I, 487.

<sup>134</sup> Olmsted, F. L., *Journey through Texas*, 134.

<sup>135</sup> Virginia, Board of Agriculture, *Report* (*House Journal and Documents*, 1842-43, Doc. 12), p. 63; *Tennessee Farmer*, I, 35, 37.

<sup>136</sup> *Southern Cultivator*, V, 60, 90; VII, 100; *American Agriculturist*, II, 366.

<sup>137</sup> *Southern Cultivator*, VIII, 38.

consisted usually of a harrow frame with plow handles attached, generally made of wood, in rectangular or triangular shape, with small plowshares or teeth of various designs—some of the bull-tongue variety; others shaped like a cooper's adze; and still others common pointed shovels with the point slightly bent forward. The better constructed cultivators were made so that the shares might be adjusted to different distances by sliding along an iron bar in which were holes for attaching the share by means of bolts. Cultivators and harrows were sometimes hinged so as to make them adaptable to working both sides of a bed of cotton at the same time.<sup>138</sup>

Mention has already been made of the development of special implements for cotton cultivation, especially scrapers, skimmers, and sweeps.<sup>139</sup> The need for an implement which would permit of shallow cultivation, not only in the baulks but also close to the row of cotton, was met by the "scraper," sometimes called the "Mississippi scraper," probably introduced in Mississippi about 1840 by Dr. Martin W. Philips, who was its ardent champion. It soon came to be widely employed in the Southwest.<sup>140</sup> Scrapers of various shapes had been used earlier in the older parts of the South.<sup>141</sup> The Mississippi scraper is described as follows by Doctor Philips:<sup>142</sup>

"They are made of a slab of iron about 12 inches wide and some 16 inches long, and shaped as a long diamond; the side fastened to the plow is 2 inches higher than the outer edge, so as when the edge next to cotton is on the bed the outer edge hugs the bed or dips into it, and when set on level land the handles and chip are not perpendicular. The bottom edge is sharp and kept so, so as to shave off earth, grass and weeds."

The scraper probably had its prototype in the "skimmer," which was being used in the second decade of the nineteenth century, having evolved from an earlier form of horse hoe employed in the late years of the eighteenth century. The skimmer was made of two pieces of iron, each piece 12 or 13 inches long and  $\frac{3}{4}$  of an inch thick, joined at one end, and resembling the letter V. The extended ends were about 22 inches apart, the right-hand end being turned up about an inch in order to throw earth to the plant.<sup>143</sup> Another instrument used for clearing out the weeds between the cotton rows and corn rows was the sweep. This was sometimes a semicircular piece of wood, lying flat on the ground, with the cutting edges level and laid with steel. The back edge was slightly raised. Sometimes it was made by welding two narrow wings to a scooter or bull-tongue plow.<sup>144</sup>

Small grain was generally sown by hand. In the late years of the eighteenth century Thomas Jefferson employed a small plow fitted with a drill for depositing

<sup>138</sup> *Farmer and Gardener*, II, 115; *Southern Agriculturist*, II, 255-262; IV, 517; *American Farmer*, 1 series, XV (1833-4), pp. 35, 43, 307; *Southern Cultivator*, V, 127; *American Agriculturist*, II, 117; *Valley Farmer* (St. Louis), XII, 128.

<sup>139</sup> See above, p. 701.

<sup>140</sup> *Southern Cultivator*, VI, 35.

<sup>141</sup> *Southern Agriculturist*, IV, 563; Flint, *Geography and History of the Western States*, I, 523.

<sup>142</sup> *Southern Cultivator*, XV, 82; cf. also *Southern Cabinet*, I, 326.

<sup>143</sup> *Southern Agriculturist*, IV, 517; cf. Bordley, *Sketches on Rotation of Crops*, 23 n.

<sup>144</sup> *American Agriculturist*, II, 117; Turner, J. A., *Cotton Planter's Manual*, 56. For a description of a number of kinds of Northern-made cultivators introduced in the South but not widely adopted, see *De Bow's Review*, VI, 132; *Southern Cultivator*, XV, 291.

seed at intervals, with a harrow behind to cover.<sup>145</sup> Later a number of drills and planters were invented by Southerners, and some Northern-made drills were introduced; but their use was not general before the Civil War.<sup>146</sup> About 1842 James Garnett, of Virginia, declared that of the few corn planters then in use none which he had thus far seen would effectively open the furrow, drop, and cover at the same time if the soil was stiff or weedy or if the land lay steep or was covered with stumps or stones. "Page's" was the only one that could be depended on to drop the seed in every hill.<sup>147</sup>

Although cradles were employed in some parts of the South in the colonial period, they did not come into general use until afterwards. Colonel McDonald, of Georgia, asserted that when he was a boy, in the early years of the nineteenth century, "A man would have been driven from the field that would have attempted to introduce the cradle into a wheat field in the upper parts of Georgia."<sup>148</sup> By 1824 it was widely employed in Virginia, and soon was in use in many other parts of the South.<sup>149</sup> As late as the Civil War, however, the sickle was still employed in some areas. As already noted, the introduction of the cradle was especially slow in the rice district. In 1857 Edmund Ruffin found the sickle generally used in reaping wheat in the coastal counties of North Carolina. The practice was employed by some of the largest and most enlightened farmers, who offered the following reasons for its continuance:<sup>150</sup>

"The laborers are expert and in a heavy growth of wheat, a good hand, with the sickle, can reap more wheat than he could, on the same ground, with the cradle, besides saving much more of what is cut down. The difference of waste will more than pay the difference of amount of labor and greater expense through a crop. Further, by using the sickle, and cutting as high as can be to save the wheat, most of the tall straw is left standing as stubble in the field, which is the cheapest, and as good a disposition as can be made of it for manuring the land, and makes a vast saving of labor in the hauling, thrashing, and stacking, compared to the handling of all the greater length of straw, as usually cut by the scythe and cradle, or by a reaping machine."

The reaping machines patented by Obed Hussey in 1833 and by Cyrus McCormick the following year were being demonstrated here and there in Virginia and Maryland during the latter half of the fifth decade. Each machine had its partisans, and each developed serious defects in the earlier trials, which led their inventors to make important improvements.<sup>151</sup> These machines merely cut the

<sup>145</sup> La Rochefoucauld, *Travels*, III, 150.

<sup>146</sup> *Valley Farmer* (St. Louis), VI, 294; Virginia State Agricultural Society, *Journal of Transactions*, I, 50; *Southern Planter*, I, 14; *Southern Agriculturist*, I, 174; *Cultivator*, VI, 16; *De Bow's Review*, VI, 133; *American Agriculturist*, IV, 111; *Southern Cultivator*, XV, 291; United States, Patent Office, *Annual Report*, 1851, *Agriculture*, 450.

<sup>147</sup> Virginia, Board of Agriculture, *Report* (House Journal and Documents, 1842-43, Doc. 12), p. 8.

<sup>148</sup> *Southern Cultivator*, III, 100.

<sup>149</sup> Singleton, *Letters from the South and West*, 60; *Southern Cultivator*, III, 100, 147; United States, Patent Office, *Annual Report*, 1855, *Agriculture*, 191; Smith, J. G., *East Tennessee*, 6.

<sup>150</sup> Ruffin, "Agricultural Features in Virginia and North Carolina," in *De Bow's Review*, XXIII, 12.

<sup>151</sup> For description of the earlier types and accounts of the early trials held in Maryland and Virginia, see *Farmers' Register*, I, 301; II, 593; IV, 413; VII, 455, 534; IX, 302, 434-436; X, 503; *Southern Planter*, III, 68; IV, 94, 204; Virginia State Agricultural Society, *Journal of Transactions*, I, 50-53, 146. Concerning the mechanical evolution of the reaper, see Miller, *Evolution of Reaping Machines* (U. S., Dept. Agric., Exp. Stations, *Bulletin* 103); Bidwell & Falconer, *Agriculture in the Northern United States*, 286-290.

grain, which fell upon a platform, whence it was either pushed by the driver or raked by the attendants. The task of binding the sheaves was still performed by hand. It was claimed that Hussey's machine would cut from 18 to 20 acres a day, and that McCormick's would cut from 15 to 20 acres by means of two hands and three horses. The McCormick reaper was said to cut as much grain as five cradlers, who would also require five rakers.<sup>152</sup> While these machines were sporadically employed in the border States, they did not come into general use before the Civil War. As late as 1855 it was declared that the McCormick reapers previously used in Virginia had been largely discarded. In South Carolina the first reaping machines were introduced as late as 1856.<sup>153</sup>

The colonial practice of threshing by driving horses over the grain spread on an earthen floor and removing the chaff by tossing the straw into the wind or by means of fans continued to be employed in remote districts.<sup>154</sup> During the last decade of the eighteenth century there were a number of inventions of threshing machines in Virginia, probably adaptations of the drum and beater principles developed in Scotland by Meikle. John Pope, who in 1792 published an account of his travels, mentions the fact that several years previously the Virginia Assembly voted a premium to a Mr. John Hobdy for the invention of a machine for beating out small grain. The machine was afterwards greatly improved by Colonel William Thornton, of Culpeper County, Virginia, who adapted it to water power.<sup>155</sup> About the close of the eighteenth century Parkinson encountered a Maryland planter, a Colonel Mercer, who had two threshing machines, one of them obtained in England. These machines were designed to thresh the ears only.<sup>156</sup> In the same decade Thomas Jefferson was using a Scotch threshing machine, capable of threshing 150 bushels per day.<sup>157</sup> Washington wrote in 1793 of "Colonel Taliaferro's threshing machine" operated by water power, and the "model brought over by the English farmers."<sup>158</sup>

By 1819 a considerable number of imported Scotch threshing machines, as well as machines of American manufacture, were in use in the South, and by 1840 were widely employed in the more progressive areas. They were much less generally used by small farmers of the Appalachian area and elsewhere. Soon there was a large variety of different makes on the market, some portable, and others stationary. Nearly all were operated by separate "horsepowers." Some were constructed on the combing, or hackling, principle and others on the beater or rubbing principles. Local mechanics constructed machines for as low as \$30

<sup>152</sup> *Southern Cultivator*, I, 100; *De Bow's Review*, VI, 133; *American Agriculturist*, II, 83; *American Farmer*, 4 series, III (1847-8), p. 78; United States, Patent Office, *Annual Report*, 1853, *Agriculture*, 132; *Southern Planter*, IV, 205; XV, 142.

<sup>153</sup> *Farmers' Register*, VIII, 634; *Southern Planter*, IV, 23; XV, 42; *American Agriculturist*, II, 302; United States, Patent Office, *Annual Report*, 1851, *Agriculture*, 313, 450; *Farmer and Planter*, VII, 161.

<sup>154</sup> United States, Patent Office, *Annual Report*, 1852, *Agriculture*, 348; Britton, "Pioneer Life in Southwest Missouri," and Good-Knight, "Wheat Raising in Pioneer Missouri," both in *Missouri Historical Review*, XVI, pp. 74, and 504; Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 663.

<sup>155</sup> *Tour*, 6.

<sup>156</sup> *Tour*, I, 66.

<sup>157</sup> La Rochefoucauld, *Travels*, III, 145; cf. True, "Early Days of the Albemarle Agricultural Society," in *Amer. Hist. Assn., Annual Report*, 1918, I, 246.

<sup>158</sup> *Writings* (Ford), XII, 341.

or \$40. The majority of the various types were capable of threshing from 100 to 200 bushels a day, and a few as much as 600 when working smoothly.<sup>159</sup> Some of these machines were said to be adapted to threshing clover seed, though in an exceedingly crude fashion. In 1815 and again about 1834 Virginians invented machines for gathering clover seed, which was ordinarily pulled in the field by hand or after cutting with sickle, scythe, or cradle. In 1836 Tennesseans invented another model.<sup>160</sup>

A number of other improved implements were introduced before the Civil War. Horserakes of home manufacture were coming into use on the more progressive farms.<sup>161</sup> A few revolving hayrakes were introduced about 1850.<sup>162</sup> There were also corn and cob crushers, corn shellers, improved household mills for grinding corn, hay and straw cutters, potato diggers, and a number of patent churns.<sup>163</sup> A Marylander invented a lime spreader, operated by a revolving feeder roller;<sup>164</sup> and a North Carolinian developed a special "manure cart," for spreading manure.<sup>165</sup> For operating threshing machines, gins, corn and cob crushers, and other machines, separate horsepowers of various types were developed. A planter in West Tennessee operated from one central horsepower a corn mill, wheat mill, cotton gin, sawmill, straw cutter, and corn sheller.<sup>166</sup>

#### SOIL CONSERVATION AND IMPROVEMENT

Many of the common methods of soil improvement were known to the more intelligent and progressive farmers of the South from a very early period, and failure to employ such methods was due rather to lack of motive than to lack of knowledge.<sup>167</sup> Nevertheless, there was widespread ignorance as to the best methods of making and applying fertilizers and preventing erosion.<sup>168</sup> In periods when agricultural depression stimulated an interest in soil improvement, there was a great deal of discussion in the agricultural papers of the technique of soil conservation.

Erosion, particularly in the rolling lands of the piedmont areas, was a problem that excited much attention and discussion. The principal remedies suggested were horizontal plowing, hillside ditching, and terracing. Horizontal plowing

<sup>159</sup> *American Farmer*, 1 series (1819-34), I, 181; III, 106; V, 351; XI, 58; XIV, 152; XV, 320; *Farmers' Register*, I, 274; II, 347, 364, 494; IX, 33; *Farmer and Gardener*, II, 98; *Prairie Farmer*, VI, 207; *Southern Agriculturist*, II, 77; VIII, 170; *Southern Cultivator*, XVI, 76; *Dollar Farmer*, I, 101; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 7; Virginia State Agricultural Society, *Journal of Transactions*, I, 50-53; *Southern Planter*, III, 48; Arthur, *Western North Carolina*, 281. Concerning the introduction of threshing machines in the rice region, see above, p. 729.

<sup>160</sup> *Tennessee Farmer*, I, 100, 161; Morrison, "Virginia Patents," in *William and Mary Quarterly*, 2 series, II, 151; *Farmers' Register*, I, 487.

<sup>161</sup> For description of such a rake, see *American Farmer*, 1 series, XV (1833-4), p. 199.

<sup>162</sup> *De Bow's Review*, VI, 133; *Southern Planter*, I, 136; *Dollar Farmer*, I, 11, 18; *Franklin Farmer*, III, 343.

<sup>163</sup> *Southern Cultivator*, II, 50; IV, 13; VI, 51; *American Agriculturist*, II, 114, 257; *Farmer and Gardener*, II, 114, 345; III, 217; *Southern Planter*, I, 53; *Farmer and Planter*, III, 52; *Dollar Farmer*, I, 11; *Franklin Farmer*, III, 54.

<sup>164</sup> *Farmer and Gardener*, V, 186.

<sup>165</sup> *Farmer's Journal*, I, 23.

<sup>166</sup> Affleck's *Southern Rural Almanac for 1851 and 1852*, p. 59; Tennessee, State Agricultural Bureau, *First Biennial Report, 1855-1856*, p. 231.

<sup>167</sup> United States, Dept. Agric., *The Cotton Plant* (Exp. Stations, *Bulletin* 33), p. 170.

<sup>168</sup> *American Agriculturist*, III, 118.

had to make its way against a storm of ridicule, but before the close of the period it was widely employed, especially in the piedmont areas from Maryland around to Texas.<sup>169</sup> Hillside ditching was usually combined with horizontal plowing, the object being to provide drainage ditches at suitable intervals to drain the water from the horizontal furrows. Terracing was also practiced to some extent. All of these methods had been long employed in Europe, and as early as the colonial period in this country. Their widespread adoption, however, did not begin until about 1825. By 1860 notable progress had been made in the prevention of erosion.<sup>170</sup> In 1850 Dr. Daniel Lee, a Northerner, made the following statement:<sup>171</sup>

"In recalling to mind the many plantations which we have visited, in South Carolina and Georgia, nothing has left so enduring an impression as the skillful manner in which hill-side ditches were constructed, to prevent the washing of the surface soil. In this matter, the planters of these States have excelled all we have witnessed elsewhere in the Union, and we have seen most of it."

Another remedy for soil exhaustion that was widely discussed was deep plowing. Shallow plowing was generally prevalent in Southern agriculture, and it was frequently possible by deep plowing to restore seemingly exhausted areas to productivity, although it was necessary to overcome the established belief that it worked injury to the soil. Subsoiling also had its advocates and was occasionally practiced.<sup>172</sup>

In addition to the reclamation of land by open ditch drainage, especially along the Atlantic coast, there was some discussion of the improvement of fields by underdrainage, particularly by blind ditches.<sup>173</sup> In the level lands of the Atlantic coastal plain considerable attention was given to the practice of bedding, and there was much discussion of the proper width of the bed, which ranged in practice from 4 or 5 feet up to 40 feet.<sup>174</sup>

At the beginning of the post colonial period the most general method of improving the soil in Virginia was by stock-penning, and this ancient practice continued to be widely employed.<sup>175</sup> At the close of the eighteenth century John Bordley was criticizing the laborious practice of moving pens about, urging the

<sup>169</sup> North Carolina State Agricultural Society, *Transactions*, 1857, pp. 39, 41, 87; *Southern Planter*, XII, 151; XIII, 185; Mississippi, Agricultural and Geological Survey, *Report* (Wailes, 1854), p. 153; *Southern Agriculturist*, II, 440; *Farmers' Register*, I, 265; II, 234; X, 390; *Carolina Planter* (1844-5), I, 223; *The Arator*, III, 730.

<sup>170</sup> *Farmers' Register*, II, 237; *Southern Planter*, XIV, 225, 228; *Southern Agriculturist*, II, 388, 440; III, 78, 178, 234; IV, 301; VIII, 456; *American Farmer*, 1 series, XV (1833-4), 57; Featherstonhaugh, *Excursion through the Slave States*, I, 49; *Southern Cultivator*, I, 81; II, 18; III, 98; VI, 105, 114; VIII, 49; XV, 12-14; *Dollar Farmer*, I, 21; Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856-1857, pp. 76, 312; North Carolina State Agricultural Society, *Transactions*, 1857, p. 41; Olmsted, F. L., *Journey in the Back Country*, 18; United States, Patent Office, *Annual Report*, 1847, p. 387.

<sup>171</sup> *Southern Cultivator*, VIII, 49.

<sup>172</sup> *Farmers' Register*, V, 365; *Southern Cultivator*, I, 149; II, 64; VI, 24, 165; *Southern Planter*, VIII, 21; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 182; Mercer, *Address to the Decatur County Agricultural Society*, Mar. 25, 1854, p. 16.

<sup>173</sup> *Southern Agriculturist*, IX, 24; X, 512; *Southern Planter*, I, 129; XX, 442.

<sup>174</sup> Ruffin, *Essays and Notes on Agriculture*, 98-124.

<sup>175</sup> *Farmers' Register*, I, 488; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 166; *American Farmer*, 1 series, XV (1833-4), p. 194; *Southern Agriculturist*, III, 601; *Southern Cultivator*, II, 18; XVI, 361; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 215.

advantages of composting by penning stock in a central lot and supplying ample litter to absorb the liquid manure. Although he tentatively accepted the prevailing belief that cornstalks had no fertilizing properties, he declared them valuable as litter.<sup>176</sup>

The prevailing theories in the first decade of the century concerning fertilization were elaborated by John Taylor. He held that vegetable manures were important as a means of drawing fertilizing properties from the atmosphere, a theory concurred in by Jefferson. Rain, Taylor thought, was potentially the richest "manure" since it brought down fertilizing properties from the atmosphere, but in order to absorb the water and prevent its evaporation, vegetable manures should be plowed in dry. Mineral manures, such as lime, marl, and plaster, he considered to be merely stimulants unless combined with vegetable manures.<sup>177</sup> The value of mulching by spreading straw and other litter on the surface of the ground was known to well-informed agriculturists.<sup>178</sup> As we have noted, the utility of green manures, especially clover in connection with plaster and lime, had come to be recognized by well-read farmers in the latter part of the eighteenth century.<sup>179</sup> George Washington experimented also with buckwheat and the Magothy, or Eastern Shore, bean, which was already celebrated for its fertilizing properties.<sup>180</sup> Jefferson tried winter vetch and peas as green manure.<sup>181</sup> Before a market developed for the lower grades of tobacco, many planters employed them for fertilizer.<sup>182</sup>

In the course of the next few decades the fertilizing value of numerous substances was recognized, many theories formulated, and experiments tried, including various animal substances such as flesh, blood, wool, and bones. There were experiments with ordinary salt as a fertilizer. The fertilizing value of turning under cornstalks was recognized,<sup>183</sup> and in spite of the assaults made by Edmund Ruffin on Taylor's "enclosing system," planters clung tenaciously to their belief in the fertilizing benefits of turning under weeds and grass which sprang up spontaneously after harvest.<sup>184</sup>

There was much discussion and experimentation as to the best methods of handling manure for preventing loss from evaporation and leeching; the relative advantages of plowing under and of top-dressing, and of broadcasting as compared with application in the hill or drill; the time of application and quantity that should be employed for various crops.<sup>185</sup> From an early period the value of marsh mud was recognized. Washington employed a large proportion of his

<sup>176</sup> *Essays and Notes on Husbandry*, 54; *idem*, *Sketches on Rotations of Crops*, 40-48.

<sup>177</sup> *Arator*, 78-94 *passim*; Jefferson, *Papers*, Vol. 98, Nos. 16740, 16819-16821 (Manuscripts, Library of Congress); cf. Johnson, W., *Nugae Georgicae*, 33.

<sup>178</sup> *Dollar Farmer*, II, 185; *Farmer and Planter*, VIII, 260; *Southern Planter*, XVII, 400.

<sup>179</sup> See above, p. 612.

<sup>180</sup> *Writings* (Sparks), XII, 320, 332; *idem*, *Diaries* (Fitzpatrick), III, 64.

<sup>181</sup> *Papers*, Vol. 98, No. 16742 (Manuscripts, Library of Congress).

<sup>182</sup> Madison, *Letters and Other Writings*, III, 83.

<sup>183</sup> *Southern Planter*, III, 42; XI, 23; XX, 762; *Southern Agriculturist*, X, 19, 120, 508; XI, 416; Redd, *Late Discovery relative to Fertilizing Poor and Exhausted Lands*, 4, 7-9; *Farmers' Register*, I, 461.

<sup>184</sup> *Farmer and Planter*, IX, 70, 127-129, 288.

<sup>185</sup> *Farmer and Gardener*, III, 236; *Farmers' Register*, II, 502; *Southern Planter*, I, 11, 39; XI, 368; *Farmer and Planter*, III, 23; IX, 132.



slave force in hauling mud from the pocosins along the Potomac to his fields. In the first two decades of the nineteenth century the practice came to be widely followed in eastern South Carolina, where the value of the mud was frequently increased by the numerous shell deposits that it contained.<sup>186</sup> Composting came to be widely practiced, sometimes on a large scale. The composting materials employed included straw, cornstalks, weeds, reeds from the marshes, leaves, sawdust, corncocks, and trash. They were mixed with swamp mud, ashes, salt, lime, cotton seed, or other fertilizers, in addition to the available animal manures.<sup>187</sup> In 1855 a North Carolina planter who worked a force of 34 hands wrote that during a single year he had gathered and applied to his fields 50,000 cartloads of compost.<sup>188</sup>

A great technical improvement was the introduction of the use of plaster and clover as a preparation for wheat, which occurred about 1786 to 1790. The use spread rapidly in Virginia by reason of the zeal of Israel Janney and John Binns. The latter's essay on the subject was probably widely read. The development of this practice had much to do with the continuance of wheat cultivation on the worn-out soils of Virginia. Thomas Jefferson gave Binns credit for restoring Loudoun County to prosperity and stopping emigration to the South.<sup>189</sup> Numerous experiments were made by Binns, John Taylor, and others in the use of plaster with various crops and in different methods of applying it.<sup>190</sup> It soon came to be generally employed in connection with clover by the better farmers in northern Virginia, western Maryland, and the upper Valley of Virginia. There is evidence that plaster and clover worked a great transformation in the agriculture of those areas. With the completion of the James River Canal cheap supplies of plaster also became available to farmers in the lower Valley.<sup>191</sup> Even in eastern Virginia its use was promoted by a gradual cheapening of its cost. During the War of 1812 it sold wholesale at Fredericksburg, Virginia, for \$11 to \$11.50 per ton, but about a decade after the close of the war it retailed commonly at \$4.50 to \$5.00.<sup>192</sup> Plaster seems to have been used successfully by a good many farmers in the coastal plain areas of Maryland,<sup>193</sup> but in spite of numerous experiments it probably gained little foothold in the coastal plain of Virginia and the Carolinas, except on a few plantations along the lower James river. Farmers in those areas early developed a prejudice against it. Some believed gypsum

<sup>186</sup> *Writings* (Sparks), XII, 274; *idem*, *Agricultural Notes* (Farmers' Register, V), 489; *Southern Agriculturist*, III, 583; VI, 1; new series, II, 57; III, 426; *Southern Planter*, VII, 264.

<sup>187</sup> *Southern Agriculturist*, III, 51; VI, 121; new series, III, 447; *Southern Planter*, VIII, 201; *Southern Cultivator*, III, 100; VI, 55, 59; *Farmer's Journal*, I, 37; *Carolina Cultivator*, I, 323; *American Agriculturist*, IV, 183; *Soil of the South*, VI, 259-262.

<sup>188</sup> *The Arator*, I, 15, 112.

<sup>189</sup> True, "John Binns of Loudoun," in *William and Mary Quarterly*, 2 series, II, 21, 25; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 164; see also Virginia State Agricultural Society (Special Committee, N. F. Cabell, chairman), Report on history of improvements in Virginia agriculture, in *Journal of Transactions*, I, 115.

<sup>190</sup> *Valley Farmer* (St. Louis), VII, 68; Binns, *Treatise on Practical Farming*, 3-6, 38-40; John Taylor's letters on the use of gypsum, in Philadelphia Agricultural Society, *Memoirs*, I, 331 n.; II, 51-54.

<sup>191</sup> Philadelphia Agricultural Society, *Memoirs*, III, 121-123; *Southern Planter*, I, 119; *Farmers' Register*, VI, 457; Faux, *Memorable Days in America* (Thwaites, Early Western Travels, XI), 116, 140, 145.

<sup>192</sup> *Virginia Herald* (Fredericksburg), current issues, 1815-1829.

<sup>193</sup> *Farmers' Register*, V, 49.

unsuited to saline atmosphere or to soils situated near salt water. In the early enthusiasm for gypsum, moreover, many applied it direct to various crops, instead of in connection with clover, with the result that they were disappointed.<sup>194</sup>

The use of lime, with which experiments had been made before the Revolution,<sup>195</sup> was again introduced in lower Virginia as early as 1794, by Fielding Lewis.<sup>196</sup> Experiments with it occurred in South Carolina as early as 1800.<sup>197</sup> Nevertheless, prior to Ruffin's agitation, lime had not aroused the great enthusiasm that had arisen in connection with plaster. Some planters, however, particularly in eastern Maryland, made a practice of burning oyster shells and applying the lime to the fields. Later in the period the extensive limestone deposits of the Valley began to be manufactured and transported to middle Virginia, which did not possess abundant marl deposits.<sup>198</sup>

Edmund Ruffin's crusade awoke the farmers and planters of lower Virginia and Maryland to the possibilities of improving the poor upland soil by utilizing the extensive marl deposits. There were many scoffers and a great deal of inertia. Toward the close of the period he admitted that not one-twentieth of the cultivated land in the Tidewater had been subjected to the ameliorative practices he advocated.<sup>199</sup> Nevertheless, a great deal of good was accomplished by Ruffin's campaign. A large proportion of the more progressive farmers entered upon extensive marling operations,<sup>200</sup> and many dispirited farmers took on a new hope. The productiveness of many farms was trebled or quadrupled by the use of marl and clover, and lands in certain counties of the coastal plain increased in value more rapidly than near-by counties of the Piedmont, a result Ruffin attributed almost exclusively to the use of marl.<sup>201</sup> Ruffin's campaign excited interest in marl in other States, and their geologists went to work to locate deposits of marl.<sup>202</sup> Ruffin himself, as head of the agricultural survey of 1843, carried the gospel into South Carolina, where marl had been hitherto but little employed.<sup>203</sup> He and his successor, Tuomey, systematically surveyed the lime deposits of the State. Although a number of planters were induced to engage extensively in marling operations, Ruffin was compelled to admit that his preaching had little effect

<sup>194</sup> *Farmers' Register*, I, 209; II, 141; V, 365; Redd, *Late Discovery relative to Fertilizing Poor and Exhausted Lands*, 7; Squibb, *Gardener's Calendar*, 163-166; *Carolina Planter* (1844-5), I, 125; *Southern Agriculturist*, VIII, 292-297; Cotting, *Essay on the Soils and Available Manures of Georgia*, 101.

<sup>195</sup> See above, p. 612.

<sup>196</sup> *Farmers' Register*, I, 18.

<sup>197</sup> *Southern Agriculturist*, new series, V, 161.

<sup>198</sup> *Farmers' Register*, I, 108; VI, 2, 421; X, 172, 518; *Farmer's Advocate*, I, 197; *Farmer and Gardener*, I, 98; II, 107; *Virginia Herald* (Fredericksburg), Nov. 26, 1825; *Southern Planter*, VIII, 59.

<sup>199</sup> *Farmers' Register*, I, 753; Ruffin, *Address on the Opposite Results of Exhausting and Fertilizing Systems of Agriculture*, 9; Virginia State Agricultural Society, *Journal of Transactions*, I, 13.

<sup>200</sup> *Farmers' Register*, I, 400-401, 491; VIII, 415; *Southern Planter*, XII, 56.

<sup>201</sup> Virginia State Agricultural Society, *Journal of Transactions*, I, 10-20; *Farmers' Register*, VI, 265; VIII, 491-497; IX, 264-267; X, 489.

<sup>202</sup> *Niles' Register*, XLVII, 65; *Farmers' Register*, V, 49-52; Cotting, *Essay on the Soils and Available Manures of Georgia*, 81; Tennessee, Geological Survey, *Third Report* (Troost, 1835), pp. 8, 22; *idem*, *First Biennial Report* (Safford, 1855), p. 112; Alabama, Geological Survey, *First Biennial Report* (Tuomey, 1849), p. 164; Jones, J., *First Report to the Cotton Planters' Convention of Georgia on the Agricultural Resources of Georgia*, p. xiv.

<sup>203</sup> *Southern Agriculturist*, new series, IV, 47; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), pp. 48, 54.

in South Carolina.<sup>204</sup> In eastern North Carolina marl had been tried as early as 1818, and in 1825 Professor Olmsted had called attention to the extensive marl deposits of the State. As late as 1847 there was said to be little use made of it,<sup>205</sup> but in the late fifties much enthusiasm for marling developed.<sup>206</sup>

Probably the most extensively used fertilizer in the lower South was cotton seed, although many planters allowed the seed to be thrown away.<sup>207</sup> Cowpeas were the principal green manure of the lower South. Dr. M. W. Philips, Thomas Affleck, and other agricultural writers were unwearied in their insistence on the great benefits derived from plowing in cowpeas.<sup>208</sup>

The era of commercial fertilizers began in the early forties, when a good deal of interest was attracted to "poudrette," a patented fertilizer said to be made by a combination of refuse matter from the sewers and garbage heaps of large cities, mixed with animal charcoal, phosphate of lime, and other substances.<sup>209</sup> A greater interest in commercial fertilizers began with the introduction of guano, or Chilian nitrate, which began to be widely known after its introduction into England in 1841. A few bushels had been imported by John S. Skinner in 1824, but then attracted little attention.<sup>210</sup> Early in the forties a cargo was landed at Baltimore. Soon the agricultural press was filled with accounts of the new fertilizer, and a guano mania developed. Fabulous stories were told of the enormous crops produced by its use, and to the owners of the exhausted lands of the old South it seemed that a new era had dawned.<sup>211</sup> Guano was found to increase yields largely on exhausted cotton fields and to make possible the utilization of the extensive areas of poor pine lands.<sup>212</sup> Its use in the lower South, however, did not become so general as in Maryland and Virginia.<sup>213</sup> The guano mania continued for several years. Imports reached a maximum of 163,662 tons in

<sup>204</sup> *Southern Agriculturist*, new series, III, 69, 117; *Carolina Planter* (1844-5), I, 120; *Farmers' Register*, X, 519; South Carolina, Geological and Agricultural Survey, *Report* (Tuomey, 1844), p. 49; Ruffin, *Address on the Opposite Results of Exhausting and Fertilizing Systems of Agriculture*, 24. Also see quotation from *Southern Quarterly Review*, in Alabama, Geological Survey, *First Biennial Report* (Tuomey, 1849), p. 166; *De Bow's Review*, XIV, 34-46.

<sup>205</sup> Olmsted, D., *Report on the Geology of Western North Carolina* (N. C., Bd. of Agric., *Papers*, Pt. II), 89; *North Carolina Farmer*, II, 162; *Farmers' Register*, III, 225; VIII, 253.

<sup>206</sup> North Carolina, Geological Survey, *Report* (Emmons, *Report on the Survey of North Carolina*, 1852), p. 53; *idem* (*Agriculture of the Eastern Counties*, 1858), p. 104.

<sup>207</sup> *Southern Agriculturist*, II, 53; *Southern Cultivator*, IV, 19; V, 168; VI, 16, 125; VII, 59; XVI, 148; letter of M. W. Philips, in *Dollar Farmer*, I, 5; United States, Patent Office, *Annual Reports*, 1847, pp. 387, 390; *Agriculture*, 1850, p. 259; 1852, p. 69; 1854, p. 115; *American Farmer*, 4 series, II (1846-7), p. 57.

<sup>208</sup> *Southern Agriculturist*, II, 144; III, 192; *American Farmer*, I series, XV (1833-4), p. 187; *American Agriculturist*, III, 181; *Soil of the South*, VI, 4; United States, Patent Office, *Annual Reports, Agriculture*, 1849, pp. 400-402; 1854, p. 114; *Dollar Farmer*, I, 5.

<sup>209</sup> *Southern Agriculturist*, new series, III, 234, 441; *Southern Planter*, I, 28; III, 70.

<sup>210</sup> *Hunt's Merchants' Magazine*, VIII, 485; XIV, 298; XXXIII, 366; *De Bow's Review*, XIII, 627; Holcomb, *Address to the Maryland State Agricultural Society*, Oct. 28, 1853, p. 19.

<sup>211</sup> *De Bow's Review*, XIII, 627-630; XXVII, 282; *American Farmer*, 4 series, II (1846-7), p. 143; *Southern Cultivator*, VI, 29; *Southern Planter*, III, 196; V, 262; IX, 339; *Farmer and Planter*, V, 297; XI, 210, 275; Russell, R., *North America, Its Agriculture and Climate*, 134; Holcomb, *Address before the Montgomery County Agricultural Society*, Sept. 14, 1854, p. 3.

<sup>212</sup> United States, Dept. Agric., *The Cotton Plant* (Exp. Stations, *Bulletin* 33), p. 171; Turner, J. A., *Cotton Planter's Manual*, 92; Mississippi, Agricultural and Geological Survey, *Report* (Hilgard, 1860), p. 359.

<sup>213</sup> *De Bow's Review*, IV, 430.

1854; but thereafter its popularity declined rapidly,<sup>214</sup> due partly to the high prices, which ranged from \$45 to \$65 a ton.<sup>215</sup> Many farmers became convinced that it was too costly for profitable use on grain; others believed that it was merely a stimulant which hastened exhaustion, and also that it introduced weed seeds. There was much dissatisfaction because the sale of Peruvian guano was a monopoly of the Peruvian Government, and numerous memorials were sent to Congress and to State legislatures, urging regulation of the monopoly.<sup>216</sup>

The high price of guano stimulated discovery and invention. Numerous commercial fertilizers were introduced from various parts of the earth, and sold under the name of "guano." Chemists were stimulated to provide substitutes. Many of these new fertilizers were fraudulent, leading to a demand for official inspection of fertilizers. In 1846 the Maryland legislature passed a law regulating the quality of commercial fertilizer—probably the first of a long series of similar enactments by the legislatures of the various Southern States.<sup>217</sup> In Virginia the early system of inspection was found so inefficient and corrupt that the State agricultural society urged repeal of the law.<sup>218</sup> Many of the substitutes, however, were effective and cheaper than the original guano, and the interest in commercial fertilizers continued to increase.<sup>219</sup>

Broadly speaking, interest in fertilization or in scientific field systems did not develop anywhere so long as fresh fertile land was locally available. This need, as already noted, had become recognized in Tidewater Virginia and Maryland before the opening of the post colonial period. By the middle of the fourth decade interest in soil improvement was beginning to develop in the tobacco sections of middle Virginia, where most of the farmers had been content with manuring tobacco beds. Before the close of the period the region near Lynchburg was complaining of soil exhaustion.<sup>220</sup> The tidewater section of North Carolina became somewhat interested in fertilizers as a result of Edmund Ruffin's campaign for marl, but systematic fertilization became more general about a decade later.<sup>221</sup> In the rice and sea-island cotton region the colonial practice of clearing and exhausting land was continued until the second decade of the nineteenth century, when planters were finding it necessary to employ marsh mud

<sup>214</sup> Report of the United States Treasury, quoted in *Hunt's Merchants' Magazine*, XLI, 645. For other estimates of the extent of the trade, see *De Bow's Review*, XVIII, 240; XIX, 219–221; letter from a Southern tourist, in *Country Gentleman*, XI, 114; *Soil of the South*, VI, 130.

<sup>215</sup> North Carolina State Agricultural Society, *Transactions*, 1857, p. 7; *Farmer and Planter*, XI, 275.  
<sup>216</sup> *Southern Planter*, XVI, 178; XVIII, 432; *North Carolina Planter*, II, 311; United States, Dept. Agric., *The Cotton Plant* (Exp. Stations, *Bulletin* 33), p. 171; *De Bow's Review*, XIII, 629; XVIII, 33; *Hunt's Merchants' Magazine*, XXXIII, 762; XXXV, 106; Virginia State Agricultural Society, *Journal of Transactions*, I, 108–110.

<sup>217</sup> *Southern Planter*, III, 245; IV, 12; VI, 49; IX, 302; X, 118, 150; XX, 371; *De Bow's Review*, XVIII, 33; *Southern Cultivator*, XV, 110; *Hunt's Merchants' Magazine*, XXXI, 232; XXXVII, 349; Jones, J., *First Report to the Cotton Planters' Convention of Georgia on the Agricultural Resources of Georgia*, p. xiv.

<sup>218</sup> *Southern Planter*, XI, 36; XII, 88; XIII, 164–166; XIV, 71–75, 79; Virginia State Agricultural Society, *Annual Report of the President and Executive Committee*, 1856–1857, p. 3.

<sup>219</sup> *Soil of the South*, VI, 256.

<sup>220</sup> *Farmers' Register*, II, 123; III, 372; IX, 66; Lynchburg Agricultural and Mechanical Society, *Journal of Transactions*, 1858, p. 18.

<sup>221</sup> *The Arator*, I, 43; *Farmer's Journal*, I, 54, 102; II, 2; North Carolina, Geological Survey, *Report* (Emmons, *Report on the Survey of North Carolina*, 1852), p. 59.

and rice straw to restore fertility.<sup>222</sup> In the case of sea-island cotton, manuring was long avoided because of the belief that a finer staple was produced on poor, sandy land than on exceptionally strong soils, but this prejudice was gradually overcome.<sup>223</sup> For a long time no attempt was made in the sugar region of lower Louisiana to prevent the waste of the deep alluvial soil, but gradually, as we have noted, the planters were compelled to resort to plowing-in the trash of the cane fields and the employment of a system of rotation that included cowpeas. The extensive employment of draft animals gave the sugar planters an additional source of fertilizer.<sup>224</sup> As late as the beginning of the fifth decade there was but little tendency to rely on artificial fertilization in the cotton regions of upland South Carolina and Georgia,<sup>225</sup> but that decade witnessed a great change. With soils largely exhausted and reserve lands used up, the planters, confronted with ruinously low cotton prices, were forced to turn largely to the employment of their labor force in the improvement of their lands by the application of composts, cotton seed, cowpeas, and guano. To some extent low prices stimulated similar practices in the States west of Georgia, but the inducement was far less strong, on account of the greater availability of fresh lands.<sup>226</sup> As late as the beginning of the fifth decade there was said to be comparatively little interest in fertilizers in Kentucky beyond the hauling out of available manure. The best farmers, however, used clover in the rotation system.<sup>227</sup>

#### FIELD SYSTEMS

Before the close of the eighteenth century the approved rotation systems advocated by Arthur Young and other apostles of the new agriculture in England were well known to the Southern leaders of agricultural thought. It was recognized that crops differ in their demands on soil fertility, and that they can be made to complement one another: it was believed that tap-rooted and fibrous-rooted crops, and broad-leaved and narrow-leaved crops are thus complementary. The desirability of fallows in preparation for small grain was understood, and though bare fallows were used in parts of the North, Southern writers argued that tillage crops were preferable. John Taylor argued strongly the desirability of maize in preference to the English dependence on turnips, peas, or potatoes. Jefferson stressed the point that when soil is left bare the sun "absorbs the nu-

<sup>222</sup> Ramsay, *History of South Carolina*, II, 225; Winyah and All Saints Agricultural Society, *Report submitted April 20, 1848*, pp. 16-20; *Southern Agriculturist*, I, 75; III, 582; VI, 159; *American Farmer*, 1 series, I (1819-20), p. 218; *De Bow's Review*, XVI, 594; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), p. 82; Warden, *Account of the United States*, II, 441.

<sup>223</sup> Article by Whitemarsh B. Seabrook, in *Southern Agriculturist*, I, 75; address of Col. R. F. W. Allston before the Association of Planting States, Columbia, S. C., 1853, in *De Bow's Review*, XVI, 613; *Southern Agriculturist*, I, 59.

<sup>224</sup> *Ibid.*, I, 553; United States, Patent Office, *Annual Report*, 1855, *Agriculture*, 268-275. See above, p. 749.

<sup>225</sup> *Southern Agriculturist*, IX, 68; Cotting, *Essay on the Soils and Available Manures of Georgia*, p. iv.

<sup>226</sup> South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., pp. 8-9, 41; *Southern Agriculturist*, I, 72-75; III, 57, 582; *American Farmer*, 1 series (1824-34), VI, 34; XV, 141, 146, 226, 233, 308; *American Agriculturist*, II, 302; IV, 118; *Country Gentleman*, XIX, 106; *Southern Cultivator*, II, 3; VI, 20; United States, Patent Office, *Annual Reports*, 1847, p. 386; 1852, *Agriculture*, 374; *De Bow's Review*, XXIII, 66; *Farmers' Register*, VIII, 638.

<sup>227</sup> *Franklin Farmer*, II, 154; III, 30; *Dollar Farmer*, II, 58.

trititious juices of the earth." The idea that certain plants, especially legumes, absorb fertility from the atmosphere and store it in the soil was accepted. It was also understood that a good rotation system should provide continuity of employment for the labor force and work stock, avoiding excessive peak demands.<sup>228</sup> Before the end of the period it was recognized that crops develop toxins in the soil, which accumulate when the same crop is planted in succession.<sup>229</sup>

Individuals here and there had early formulated rotations in accordance with these theories. Washington and Jefferson, in contrast with Taylor, had both developed an aversion to corn, believing it an especially exhausting crop. About 1792 Washington had a seven-year rotation. The first year was corn and potatoes in alternate hills, for both he and Jefferson believed potatoes improved the ground. The second year was wheat; third year, buckwheat, to be plowed in; fourth year, wheat; and the next three years clover.<sup>230</sup> About two years later Jefferson, after discussions with John Taylor and others, also formulated a seven-year system. He began with wheat, followed by turnips in the same year, to be grazed by sheep—in deference to English ideas. The second year was corn and potatoes in alternate rows, followed by winter vetch to be used as fodder in spring or turned under; the third year was peas or potatoes, or both; the fourth, rye or wheat, with clover; the next two years clover, with vetch sowed in the autumn of the sixth year. The seventh year the vetch was plowed under, and in the spring, buckwheat was sowed, to be plowed under in the Fall.<sup>231</sup>

The usual field systems, however, were determined less by theory than by existing economic conditions, reinforced by inertia and habit. In tobacco regions where a supply of virgin land remained, there prevailed the colonial system of clearing and planting tobacco for about three years, followed by wheat and corn continuously as long as the land would bring 5 or 6 bushels of wheat or 10 or 12 bushels of corn. The land was then thrown out to be "rested" for ten or twelve years.<sup>232</sup> The alternation of wheat and corn represented a concession to the ideal of rotation. After harvest wheat was grazed closely till spring. The first and most prevalent attempt at a rotation system with a view to conserving the soil was the old three-field system. This consisted of corn, wheat, and rest—that is, for one year the field was left unplowed, and such vegetation as grew spontaneously was grazed by cattle and hogs.<sup>233</sup> In parts of eastern North Carolina and southeastern Virginia corn with cowpeas was grown continuously year after year. Sometimes a two-field system of corn and peas, followed by

<sup>228</sup> Taylor, J., *Arator*, 94–110; letters of Taylor and Jefferson, in Jefferson, *Papers*, Vol. 98, Nos. 16740–16745, 16819–16821 (Manuscripts, Library of Congress); Logan, G., *Fourteen Agricultural Experiments to Ascertain the Best Rotation of Crops*, 16–18; Bordley, *Sketches on Rotations of Crops*, 11; *idem*, *Summary View of the Courses of Crops in England and Maryland*, 14; *North Carolina Chronicle or Fayetteville Gazette*, Sept. 27, Oct. 4, 1790.

<sup>229</sup> *Farmer and Planter*, I, 17.

<sup>230</sup> Jefferson, *Papers*, Vol. 78, No. 13465; Washington, *Papers*, Vol. 231, Nos. 31114–31115; Vol. 298, No. 40019 (Manuscripts, Library of Congress).

<sup>231</sup> Jefferson, *Papers*, Vol. 98, No. 16742 (Manuscripts, Library of Congress).

<sup>232</sup> *Farmers' Register*, I, 4; II, 123, 705; III, 48, 263; V, 228–230, 323, 330–332; VIII, 577; *Virginia Herald* (Fredericksburg), Feb. 4, 1809; Virginia, Board of Agriculture, *Report* (*House Journal and Documents*, 1842–43, Doc. 12), pp. 3–16. See above, p. 217.

<sup>233</sup> *Farmers' Register*, I, 4, 108; II, 352; VII, 610; VIII, 577; Bordley, *Sketches on Rotation of Crops*, 11; Virginia State Agricultural Society, *Journal of Transactions*, I, 28.

oats, prevailed.<sup>234</sup> On the Eastern Shore there was a similar two-field system, except that wheat frequently replaced the oats, and instead of cowpeas the Magothy, or Eastern Shore, bean, which sprang up spontaneously after harvest, was relied on to maintain fertility.<sup>235</sup>

Two improvements over these crude systems came to be widely adopted by progressive farmers. In northern and western Virginia and Maryland the new three-field system, based on the use of gypsum, with clover in the third year, popularized by John Binns and Israel Janney, worked wonders in soil improvement.<sup>236</sup> John Taylor, as we have noted, became the enthusiastic apostle of rest without grazing, and converted many farmers to his creed. He developed a four-course rotation, consisting of corn, wheat, and two years of rest without grazing. While preferring plaster and clover instead of the two years of rest, he recognized that there were large areas too poor to grow clover, and many farmers who could not be induced to use calcareous fertilizers. The comparatively small change over existing practices—the abandonment of grazing, and resting for two years instead of one—was an inducement to thousands of farmers to adopt Taylor's system.<sup>237</sup>

Before the publication of Ruffin's *Essay on Calcareous Manures* few of the farmers of eastern Virginia had introduced clover into the rotation system, although a few were employing Taylor's four-course system with two years of clover. Subsequently a number of rotations with clover were adopted. Taylor's system was gradually abandoned because in two years of rest the fields became foul, and because the system involved too small a proportion of the arable land in crops. Many accepted the new three-field system of northern Virginia. Some of the good farmers on the alluvial lands of the lower James river developed a four-course system of corn, wheat, clover (not grazed or cut), and wheat. This system, however, was severely criticised. It was pointed out that in eastern Virginia corn was a more profitable market crop than wheat, while under this system only a fourth of the land was in corn, and that made to follow wheat instead of following clover, as in the three-field system; that the four-course system was costly on account of the necessity of fallowing wheat; and that the majority of the poor upland soils could not stand three grain crops in four years.<sup>238</sup>

In western Maryland, Piedmont Virginia, and the Valley, the rotation systems tended to reflect the relatively greater adaptability of those areas to wheat, as compared with eastern Virginia. In addition to the new three-field system, some farmers employed Taylor's four-course system with clover fallowed in the

<sup>234</sup> *Farmers' Register*, I, 285; VIII, 250; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 43.

<sup>235</sup> *Farmers' Register*, I, 285, 731; III, 234; V, 379.

<sup>236</sup> *Ibid.*, I, 4; II, 380; III, 284; *American Farmer*, 1 series, II (1820-1), p. 14; *American Agriculturist*, IV, 118; *Southern Cultivator*, VIII, 37; United States, Patent Office, *Annual Report, 1850, Agriculture*, 213; Murray, C. A., *Travels in North America*, I, 169. See above, p. 803.

<sup>237</sup> Taylor, J., *Arator*, 141 *et seq.*; *Farmers' Register*, II, 352, 380, 464, 658; III, 114; VII, 561, 612; Virginia State Agricultural Society, *Journal of Transactions*, I, 28; letter of Taylor to Jefferson, Mar. 5, 1795, in Jefferson, *Papers*, Vol. 98, Nos. 16819-16821 (Manuscripts, Library of Congress).

<sup>238</sup> *Farmers' Register*, I, 132, 323, 569; II, 464, 658; V, 365; VII, 542, 612; VIII, 1-3, 578; X, 386; Virginia State Agricultural Society, *Journal of Transactions*, I, 28-30; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 23-25.

Fall of the second year.<sup>239</sup> Others pursued a five-course rotation of wheat, corn, wheat, and two of clover. In order to avoid the three grain crops in succession, still others changed to the so-called Wickham rotation of corn, wheat, clover, wheat, clover.<sup>240</sup> In parts of the northern Piedmont there was a six-field system of corn, wheat, clover for two years, wheat, and clover. This permitted corn and one of the crops of wheat to follow clover.<sup>241</sup>

When tobacco growing was finally developed into an integral part of a system of general farming instead of a one-crop system, it became the custom to have two rotations on the same farm, on account of the small acreage in tobacco. Ordinarily the two rotations were tobacco, wheat, clover for two years; and corn, wheat, and clover for two years.<sup>242</sup> In the bluegrass sections of Kentucky, when the primitive system of continuous cultivation was rapidly giving way about 1840 to the so-called "grazing system," the exhausted soils were broken up and sown to rye or oats; after these were up, clover was sown among them. The small grain crop was pastured off, and subsequently the clover was pastured two years. If the land was greatly exhausted the clover was allowed to reseed itself and continue four years. At the end of the period of rest the clover lay was turned under deep and planted to corn for one to two years.<sup>243</sup>

In the upland cotton belt planters commonly followed the practice of planting cotton year after year in the same field. When nearly an equal amount of land was devoted to cotton and corn, the two crops were sometimes alternated, the latter frequently combined with cowpeas.<sup>244</sup> According to Solon Robinson, "resting" was the only renovating process known to most planters.<sup>245</sup> A prevalent rotation system, commonly known as "the planters rotation," was cotton, corn, and small grain. Because of the small amount of land normally devoted to small grain it was not possible to make this a triennial rotation. Another rotation system was cotton, corn, and rest.<sup>246</sup>

<sup>239</sup> *Farmers' Register*, II, 705.

<sup>240</sup> *Cultivator*, III, 238; United States, Patent Office, *Annual Reports*, 1847, pp. 375, 377; *Agriculture*, 1850, p. 213; 1853, p. 214; *Farmers' Register*, II, 139; VIII, 578; *Niles' Register*, LXIX, 92; *American Farmer*, 1 series (1819-34), I, 132; XV, 130; *Southern Cultivator*, III, 147.

<sup>241</sup> *Farmers' Register*, II, 235.

<sup>242</sup> *Ibid.*, IV, 375; V, 7; IX, 177, 198. See above, p. 774.

<sup>243</sup> *Franklin Farmer*, III, 279, 289; Faux, *Memorable Days in America* (Thwaites, Early Western Travels, XI), 187.

<sup>244</sup> Mississippi, Agricultural and Geological Survey, *Report* (Hilgard, 1860), p. 241; Johnson, W., *Nugae Georgicae*, 18; *Southern Cultivator*, III, 98; XV, 92; XVI, 310; *Country Gentleman*, XI, 365; *Pendleton Farmers' Society*, 157.

<sup>245</sup> *Southern Cultivator*, VIII, 138.

<sup>246</sup> *Carolina Planter* (1844-5), I, 274-276; *Southern Agriculturist*, II, 317; *Southern Cultivator*, II, 18; III, 97; IV, 7; V, 173; VI, 35, 52, 125; VII, 162; Mississippi, Agricultural and Geological Survey, *Report* (Hilgard, 1860), p. 241; Turner, J. A., *Cotton Planter's Manual*, 76-79; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., p. 8; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 145; 1850, pp. 195, 231, 288; 1854, p. 122. Concerning field systems in the rice, sea-island cotton, and sugar regions, see above, Chap. XXXI.



## CHAPTER XXXIV

### GENERAL FARM CROPS

Corn, 811. Wheat, 816. Other Small Grain Crops, 820. Flax and Hemp, 820. Grasses and Legumes, 822. Fruit and Garden Products, 824. Miscellaneous Crops, 827.

Throughout the ante bellum period the South was the leading agricultural region of what is now the United States. This was still true in 1860, according to the census, although the relative importance of the South had been declining for some years on account of the development of the Northwest. In 1860 the South comprised 29.5 per cent of the area of the United States,<sup>1</sup> and 38.9 per cent of the total population. The section produced in 1859 practically all of the cotton, rice, and sugar grown in the United States, and 86.4 per cent of the tobacco. More than half the corn of the United States was produced in the South, 28.9 per cent of the wheat, 19.2 per cent of the oats, and 19.4 per cent of the rye. Barley comprised less than 5 per cent of the total, and the extensive areas of available grazing land eliminated the necessity of much attention to hay, of which less than 10 per cent was grown in the South. Ten per cent of the Irish potatoes and 94 per cent of the sweet potatoes were grown in this section. The South produced 87.1 per cent of the hemp, 36.8 per cent of the flax, 17.7 per cent of the flax seed, and four fifths of the peas and beans.

The per capita number of each of the principal classes of livestock was higher in the South than for the United States as a whole, and the same was true of the per capita acreage of all the general farm crops except the small grain crops and potatoes. (Table 31.)

The border States produced by far the greater proportion of the general farm crops of the South. In 1859 the acreage of the border States in general farm crops was more than 80 per cent of the Southern total for all the general farm crops except corn, of which the border States reported nearly 63 per cent: peas and beans, nearly 29 per cent: and sweet potatoes, about 31 per cent. Practically all the hemp, flax, and flax seed were produced in the border States.

### CORN

Although in 1859 the fifteen Southern States, including Delaware, produced 52 per cent of the corn of the United States, the section had lost ground since 1839, when it produced over 65 per cent of the Nation's corn crop. In 1839 Tennessee was the leading corn-producing State in the Union, and Kentucky ranked second. By 1859 the same States ranked sixth and fifth respectively, while Missouri had advanced to third. Each of the Southern States, however, showed a substantial increase in the production of corn between 1839 and 1859.<sup>2</sup>

<sup>1</sup> Kansas and Minnesota are included in the total.

<sup>2</sup> See Appendix, Table 52.

Although the per capita production of corn in the South was 34 per cent more than for the entire Nation, comparatively little was exported to foreign countries. In the decade 1837 to 1846 exports from the entire United States amounted to only 6,360,359 bushels, as compared with 14,852,638 bushels in the decade 1790 to 1799. In the next decade, 1847 to 1856, however, exports suddenly increased to 76,193,561 bushels,<sup>3</sup> probably mostly from the Middle West, for the per capita production of the South in 1860 was only a bushel more than it had been in 1840.

Excepting the considerable shipments from the border States to the plantation regions of the lower South, most of the Southern corn was consumed in localities where produced. Practically all the lower South was either partly dependent on importation or raised little more than local requirements. The Great Valley and the piedmont section of Virginia and Maryland were too far from market to ship large quantities of corn, and required the greater part for fattening mountain cattle. The principal shipping areas, therefore, were eastern Virginia and

TABLE 31.—*Number of livestock per capita and production of farm crops per capita, 1860<sup>1</sup>*

	The United States	The South
	<i>per capita</i>	<i>per capita</i>
Horses, asses, and mules.....	0.24	0.29
Cattle, including dairy cattle and oxen.....	0.81	1.05
Sheep and swine.....	1.78	2.27
Bushels of wheat, rye, barley, and buckwheat.....	7.24	4.57
Bushels of corn.....	26.68	35.63
Bushels of Irish and sweet potatoes.....	4.87	4.23
Bushels of peas and beans.....	0.48	0.98

<sup>1</sup> Derived by calculation from *United States Census, 1860, Agriculture*.

parts of Tennessee, Kentucky, and Missouri having access to market. Until the era of trunkline railways western producers were essentially dependent on the lower South for a market, for costs of transport to the eastern seaboard were excessive. In 1845, for instance, an Illinois farmer shipped 1,183 bushels of corn to Boston by way of the Mississippi river and ocean vessels. The corn sold on arrival for \$628.25, but expenses of shipment were \$563.55, of which \$236.27 represented shipment to New Orleans.<sup>4</sup>

From 1801 to 1860 inclusive the average annual price of corn at local points in Virginia was a fraction over 60 cents a bushel. (Table 50, Appendix.) Corn was higher than this average in every year from 1801 to 1822 inclusive, except in 1802, 1807, 1808, 1819, and 1820. Prices lower than the average prevailed from 1823 to 1831 inclusive, except for 1825 and 1830, when they were slightly above the average. The period 1832–1838 inclusive, most of it characterized by the feverish speculation culminating in the panic of 1837, was one of high prices. Then another period of low prices set in, continuing from 1839 to 1852 inclusive, except 1845 and 1846. In the period 1853 to 1860 prices were continuously

<sup>3</sup> United States, *General Statement of Exports to Foreign Countries* (Senate Report, 53 Cong., 2 sess., IV, Pt. II, No. 259), pp. 13, 105.

<sup>4</sup> *Hunt's Merchants' Magazine*, XVII, 110.

above the average. In 1837 and 1839 prices of Western corn at New Orleans were higher than local Virginia prices. This may have been due to more excessive speculation and inflation in the Western States than in Virginia, but scattering quotations for the period 1821 to 1826 indicate that prices of corn ruled higher in New Orleans than in Virginia. On the other hand, from 1841 to 1860 prices of corn at New Orleans were generally lower than local prices in Virginia. The probability is that prior to 1840 higher prices at New Orleans reflected the normal differential between prices in a central market and prices in regions of production many hundred miles distant; whereas, after about 1840 the rapid development of the prairies led to a much lower price level in the West than in the East. This new competition must have had a discouraging influence on the older corn producing regions of Kentucky and Tennessee, many of them less well adapted to corn production than the prairies and already suffering from impaired soil fertility.

By the beginning of the post colonial period plows had largely superseded the hoe and hill methods in the planting of corn, except in the midst of stumps on newly cleared ground, but hoes were still largely used to supplement the plow in cultivation, frequently for as many as three hoeings. The majority continued to use the plow exclusively for horse cultivation, although at the beginning of the period Washington and other leading farmers were already employing harrows and cultivators.<sup>5</sup> A large proportion of the farmers also did not break up the entire field preparatory to planting, but merely prepared a ridge or "list" by running narrow plows two or three times up and down the intended row, and sometimes once across if the corn was to be cross-checked. The middles might afterwards be broken. There was an increasing tendency toward plowing the entire field.<sup>6</sup> There was a difference of opinion and of practice as to the relative advantage of planting on ridges or on the flat. Farmers in the alluvial parts of the Tidewater preferred to plant in beds about 5 feet in width, to promote drainage. This method, associated with planting in the drill when cross-plowing was difficult without destroying the bed, necessitated a greater use of the hoe than was requisite where cross-plowing was possible.<sup>7</sup> There was much discussion as to the relative advantages of cross-plowing as compared with planting in the drill. In part this was associated with a controversy over the question whether it was desirable to break the roots of the corn. There was an old and strongly held belief that breaking the roots was desirable, but gradually the more enlightened opinion swung against the practice. The question of cross-checking versus drill husbandry was also connected with differences of opinion as to the proper distance for planting corn in the row and the proper distance of rows from one another. There was an increasing tendency to use the plow less in cultivation and rely more on harrows and cultivators, including skimmers, sweeps,

<sup>5</sup> *Southern Planter*, II, 217, 219; cf. Cabell, *Early History of Agriculture in Virginia*, 11; *Southern Agriculturist*, V, 61; *Farmers' Register*, I, 560.

<sup>6</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 4; *Agricultural Museum*, II, 151; *Farmers' Register*, VII, 383; *North Carolina Planter*, III, 39.

<sup>7</sup> *Agricultural Museum*, II, 79; *Farmers' Register*, I, 560; VI, 185; Taylor, J., *Arator*, 156-167; *Southern Agriculturist*, V, 61.

and scrapers, partly because these implements permitted shallow cultivation, and partly because of the great saving of labor. Many farmers, however, believed in one deep cultivation in the early stages of the crop, subsequently followed by shallow cultivation. There was an increasing disposition to cross-check carefully in planting, and thus reduce the use of the hoe to a minimum. While these tendencies gained headway among the more progressive farmers, many remained wedded to the old ridge-and-furrow methods, especially in areas of the coastal plain where drainage was a problem and bedding was necessary.<sup>8</sup>

There was an increasing recognition of the desirability of using plenty of seed and depending on thinning to reduce the crop to a stand, in accordance with the doggerel:

“One for the blackbird,  
One for the crow,  
One for the cutworm  
And two to grow.”

The number of stalks left to the hill varied from 1 to 3, according to the strength of the land, the distances of planting, and the views of the farmer.<sup>9</sup> Some believed in rolling the seed in plaster of Paris before planting. Others employed a coat of tar, believing that this would defeat the depredations of birds, or saltpetre to discourage the attacks of cutworms.<sup>10</sup> Good planters carefully selected seed, and as early as 1817 preliminary testing for germination by planting in warm manure was recommended.<sup>11</sup> With the exception of tobacco the practice of manuring corn was more common than in the case of any other crop. Generally barnyard manure or cotton seed was applied to the hill or drill. Instead of planting peas in the hill, it came to be customary to plant them in a furrow near the corn row or broadcast at the last plowing.<sup>12</sup>

Pulling fodder continued to be an almost universal practice in the lower South, as well as in the most of eastern Virginia and Maryland, and the practice was followed by many of the early settlers of the Missouri valley. It was believed the dried blades contained more nourishment than an equal quantity of hay. An average day's work was about 100 bundles per hand.<sup>13</sup> There were many

<sup>8</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 4-6, 45; *Agricultural Museum*, II, 79; *Southern Planter*, II, 51; *Farmers' Register*, I, 560, 578; II, 15, 466, 618; III, 497; V, 366; VIII, 279; X, 385; *Southern Agriculturist*, XI, 188; Taylor, J., *Arator*, 156-167; Allston, *Essay on Sea Coast Crops*, 19-21; Beatty, *Essays on Practical Agriculture*, 88-90; *Farmer and Planter*, IV, 70; *Tennessee Farmer*, I, 168.

<sup>9</sup> *Southern Planter*, I, 22; V, 37, 65; Beatty, *Essays on Practical Agriculture*, 88; *North Carolina Planter*, III, 40.

<sup>10</sup> *Southern Agriculturist*, XII, 192; *Dollar Farmer*, III, 12, 152.

<sup>11</sup> *Farmer and Planter*, V, 300; *Southern Planter*, III, 228; *Farmer and Gardener*, III, 212; *Virginia Herald* (Fredericksburg), May 10, 1817.

<sup>12</sup> *Southern Agriculturist*, IV, 517; *American Farmer*, 1 series, XV (1833-4), pp. 307, 386; *Southern Cultivator*, I, 45; IV, 8; V, 103, 149; VI, 35, 39; VII, 100, 131, 139; VIII, 20, 35; XVI, 154; United States, Patent Office, *Annual Reports*, 1845, p. 171; 1850, *Agriculture*, 216, 232.

<sup>13</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 6; Phillips, U. B., *Plantation and Frontier*, I, 111; *American Farmer*, 1 series, I (1819-20), p. 131; United States, Patent Office, *Annual Reports*, 1847, p. 390; *Agriculture*, 1849, pp. 137, 148; 1850, pp. 261, 349; 1853, pp. 7, 11; *De Bow's Review*, VII, 442; *Farmers' Register*, VI, 347; Bordley, *Essays and Notes on Husbandry*, 105; Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 675; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 81.

protests against the practice. It was argued that the amount of labor required was excessive and that the pulling of the tender blades before the corn was ripe injured the crop. Some urged planting close in drills as a special forage crop.<sup>14</sup> A number of experiments were carried on to determine the effect of pulling fodder and cutting off tops on yield of grain. Some of these experiments showed a shrinkage in yield, but one or two indicated no diminution.<sup>15</sup> In extenuation it was argued the fodder was more nutritious when pulled green and that the rainy season occurred at the time cornstalks were ready to cut, making it difficult to cure them, whereas fodder was ordinarily pulled in "lay-by" time.<sup>16</sup>

In areas where fodder was pulled there were several methods for the subsequent harvesting. Some snapped the ears from standing stalks, and either shucked them at the time or hauled them unshucked to the crib; others cut the stalks and shocked them, subsequently shucking the ears; still others hauled the stalks to the barn and carried on the shucking there. In northern and western Virginia and Maryland, and in the farming areas of Kentucky, Tennessee, and Missouri, the practice of cutting and shocking the entire stalk without pulling the fodder came to be widely practiced.<sup>17</sup> The crude method of shelling corn by beating it out with long poles on scaffolds made of rails was practiced by many farmers, but patent corn shellers were coming widely into use before the close of the period. Many preferred grinding corn and cobs together for feeding purposes.<sup>18</sup>

In the South white corn was generally preferred, although in commercial areas along the Atlantic coast some preferred yellow corn because it commanded a premium in Northern markets. The two principal types were "gourd seed" and flint, but a number of other varieties were popular. A widely advertised "Chinese tree corn" proved to be another of the "Munchausen puffs" for gulling credulous farmers.<sup>19</sup>

On virgin soils and rich bottom lands crops of 70 to 100 bushels or more per acre were sometimes obtained. In the early years of the fifth decade apparently well-authenticated instances of high yields by individual growers in Kentucky included the following: an average of 140 bushels per acre on a large field, 550 bushels from 5 acres, 178 bushels from 1  $\frac{1}{8}$  acres, and two acres which respectively yielded 195 and 198  $\frac{1}{4}$  bushels of shelled corn, the acreage and product having been measured by members of the Jessamine County agricultural society. On the poor and depleted sandy lands of the coastal plain crops ranged from 8 to 15 bushels. In the piedmont areas from Maryland to Georgia, and in the Great

<sup>14</sup> *Western Farm Journal*, I, 7; *Southern Cultivator*, VI, 133; XV, 201, 233; *Farmers' Register*, II, 92.

<sup>15</sup> *Ibid.*, V, 651, 755; Ruffin, *Essays and Notes on Agriculture*, 174-178, 183, 188.

<sup>16</sup> *Southern Cultivator*, XV, 10; *Farmers' Register*, II, 92.

<sup>17</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 6; Ruffin, *Essays and Notes on Agriculture*, 178-188; *Farmers' Register*, VIII, 354; Beatty, *Essays on Practical Agriculture*, 92-96.

<sup>18</sup> *Southern Planter*, I, 61; *Southern Agriculturist*, new series, V, 76.

<sup>19</sup> Concerning the different varieties, see Holmes, F. S., *Southern Farmer and Market Gardener*, 61; *Franklin Farmer*, II, 62, 154; III, 9; *Carolina Planter* (1840), p. 316; *Southern Planter*, XIX, 183; *Farmers' Register*, V, 379; VII, 745-748; IX, 30, 117; Agricultural Society of South Carolina, *Original Communications*, 45; Bachman, *Inquiry into the Nature and Benefits of an Agricultural Survey of South Carolina*, 17.

Valley, good farmers made from 35 to 50 bushels. Much of the over-cropped upland of Georgia and the Carolinas would not bring more than 15 to 20 bushels. Good planters throughout the lower South counted on 25 to 30 bushels.<sup>20</sup>

#### WHEAT

Early in the post colonial period corn gradually replaced wheat as the principal market crop of Tidewater Virginia. Some wheat was grown as a secondary crop in rotation systems, and in the rich alluvial lands of the river valleys continued to be an important market crop, especially on large plantations in the valley of the lower James river, some of which contained thousands of acres in wheat. It continued to be the principal market crop in the northern part of the piedmont region, in the Valley, and in western Maryland. It was grown incidentally in the tobacco counties of middle Virginia.<sup>21</sup> In all these areas its production was stimulated by the development of the clover and plaster husbandry.<sup>22</sup> In 1815 Baltimore exported 221,269 barrels of flour and in 1816, 186,893 barrels.<sup>23</sup> In 1842 the inspections of flour at Baltimore were equivalent to nearly 540,000 barrels.<sup>24</sup> Richmond, Virginia, was another important milling and export center, particularly for the South American trade. In 1834 the capacity of the mills of Richmond and vicinity was 500,000 barrels per annum.<sup>25</sup>

After sufficient land was cleared, some wheat was grown in Kentucky, and the surplus sold in the markets of the lower South. It was the principal market crop of east Tennessee, which enjoyed a limited market for its flour in northern Alabama, and was grown in considerable quantities in the northern counties of Nashville Basin, but until the fifties this area did not produce enough for home consumption. The extension of railway lines from the coast to Knoxville and the building of the Nashville and Chattanooga Railroad made it possible to transport the grain to coastal cities that had hitherto imported from the North. About 1850 Charleston began to export this western wheat. The high prices of the Crimean War stimulated the production of wheat in Kentucky and in middle and west Tennessee. In 1857 it was estimated that the Tennessee crop had increased from 1,600,000 bushels, shown by the census for 1849, to 6,000,000 to 8,000,000 bushels.<sup>26</sup> Because of the prevailing belief in the lower South that the

<sup>20</sup> Collins, L., *Historical Sketches of Kentucky*, I, 47; United States, Patent Office, *Annual Reports*, 1845, pp. 169-173; 1847, p. 375; *Agriculture*, 1849, pp. 144, 172, 230; 1850, p. 19; 1851, p. 329; 1854, p. 135; 1855, pp. 169, 174, 181; United States Agricultural Society, *Journal*, I, No. 1, p. 102; V, 70; VII, 53; Walker, C. I., *History of the Agricultural Society of South Carolina*, 53; Russell, R., *Culture of Carolina Rice*, 10; *North Carolina Planter*, III, 57; *Pendleton Farmers' Society*, 160; *Farmers' Register*, V, 8; IX, 265-267; *Niles' Register*, LXIX, 92; *Virginia Herald* (Fredericksburg), Nov. 3, 1810; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 45; *Southern Planter*, XV, 56; Kentucky State Agricultural Society, *Report, 1858-1859*, p. 123; Warden, *Account of the United States*, II, 160, 338, 445, 483, 537; III, 149.

<sup>21</sup> Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 150, 165; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 53; Kercheval, *Valley of Virginia*, 137.

<sup>22</sup> *Hunt's Merchants' Magazine*, XIX, 479; United States, Dept. Agric., *Annual Report*, 1864, p. 28; Binns, *Treatise on Practical Farming*, 39.

<sup>23</sup> *New York Shipping and Commercial List*, Oct. 11, 1816; Feb. 21, 1817.

<sup>24</sup> *Niles' Register*, XXVII, 339.

<sup>25</sup> *Farmers' Register*, II, 181.

<sup>26</sup> Tennessee, State Agricultural Bureau, *Second Biennial Report, 1856-1857*, p. 95; *Southern Cultivator*, VII, 81; *De Bow's Review*, VII, 92; Kentucky State Agricultural Society, *Report, 1856-1857*, p. 545; 1858-1859, p. 22.

climate was not favorable to wheat and because of the superior economic advantages of cotton and corn, wheat was grown only for home consumption.<sup>27</sup>

There is no indication of an appreciable increase from 1790 to 1840 in commercial production of wheat in the South, if we may judge by the exports from the country as a whole, which actually decreased, while the amount of flour exported remained about the same. After 1840, however, settlement of the Northwest and the opening of the British market resulted in a large expansion in wheat production. In 1839 and 1849 Virginia ranked fourth among the States in wheat production, and in 1859 fifth. In 1839 Kentucky was fifth and Tennessee sixth, but both States declined largely in their relative positions during the next two decades. The percentage of the wheat crop of the United States produced in the South decreased from 35.4 per cent in 1839 to 28.9 per cent in 1859. In spite of this relative decline, however, there was an increase in wheat production in all Southern States except for a large decrease from 1839 to 1849 in Alabama, Georgia, Kentucky, Mississippi, and Tennessee, which was more than compensated by a very large increase during the next decade. Per capita pro-

TABLE 32.—*Exports of wheat and wheat flour from the United States, by decades, 1790 to 1870*<sup>1</sup>

Year	Wheat	Wheat flour	Total value
	<i>bushels</i>	<i>barrels</i>	<i>dollars</i>
1790-1799	5,357,190	7,085,690	
1800-1809	3,119,670	8,953,721	
1810-1819	1,330,359	7,447,057	
1820-1829	175,272	9,052,926	48,405,959
1830-1839	781,415	8,664,829	52,986,995
1840-1849	14,243,705	19,071,576	120,110,558
1850-1859	51,709,036	27,701,638	243,389,450
1860-1869	187,686,309	30,360,781	472,550,849

<sup>1</sup> Brewer, *Report on Cereal Production (United States Census, 1880, III, Agriculture)*, 87.

duction in the slaveholding States increased from nearly three bushels in 1849 to a little over four in 1859.<sup>28</sup>

The movement of the local prices of wheat in Virginia during the first sixty years of the nineteenth century is shown in Table 51, Appendix. The average for the entire period is \$1.14. Judged by the average, wheat was low from 1806 to 1809 inclusive and for 1813 and 1814. It was continuously low during the sixteen years from 1819 to 1834 inclusive, except for 1828. Good prices ruled during the years 1835-1838 inclusive, the period of general inflation and speculation, but low prices prevailed again during the fourteen-year period 1839-1852 inclusive, except for a slight increase above the average in 1841 and 1847. The last eight years were marked by high prices. Since trans-Allegheny wheat was generally manufactured into flour before shipment to New Orleans, a long series of wheat quotations is not available for that market. Consequently the movements of wheat prices must be judged from flour quotations. In general, average flour prices for New Orleans followed the larger fluctuations of local wheat

<sup>27</sup> *Southern Cultivator*, VI, 115; VII, 71, 137; United States, Patent Office, *Annual Report*, 1851, *Agriculture*, 333; Flint, *Geography and History of the Western States*, I, 520.

<sup>28</sup> *United States Census*, 1860, *Agriculture*, pp. xxix-xxxi; *idem*, *Statistical View: A Compendium of the Seventh Census*, 171.

prices in Virginia. The average price of flour for the forty-four years from 1815 to 1860 for which quotations are available was \$5.88. On this basis, flour was very high from 1815 to 1820 inclusive. Prices were low for the entire period 1821–1834 inclusive, with the exception of 1829. High prices ruled during the period 1835–1839 inclusive. Then followed a long period of low prices from 1840 to 1853. Beginning in 1854, prices were high for several years. They were low again in 1858 and 1859, and about average in 1860. Thus high prices in the West were not as continuous during the last eight years as they were in Virginia markets.

In the early years it was customary to sow wheat in the midst of standing corn, which was later cut and carried by the laborers to the end of the row for shocking. Later, however, the custom gained favor of postponing sowing until after the corn was cut and shocked in the field.<sup>29</sup> The more progressive farmers prepared their soil carefully with plow and harrow, but many made little preparation, scattering the seed on ground previously cultivated in corn. It was estimated by one writer that only about one fourth of the wheat raised in east Tennessee was sown on land previously prepared. Most of the farmers sowed broadcast, though drills were coming to be more widely employed. Some covered with the plow, while others used harrows or brushed the seed in. Here and there good farmers employed rollers. The practice of sowing unduly small quantities, frequently not over three quarters of a bushel, was a matter of concern to agricultural reformers.<sup>30</sup>

In cradling, which became probably the most usual method of harvesting, agricultural reformers attempted to induce Virginia farmers to abandon the practice of having the cradler "handle" the wheat as it was cut—that is, catch the wheat in the left hand with each sweep of the cradle—and urged the adoption of the Northern method of laying it in a swath, to be gathered up by the rakers and binders. The average day's cut was  $2\frac{1}{2}$  acres per cradler. There were various methods of disposing of the wheat after cutting. Some bound the straw by hand and put it up in shocks; others put the green wheat first into stooks of 8 or 10 sheaves for a few days and then removed them to shocks of larger size. A large proportion of the farmers in eastern Virginia did not bind at all, but placed the wheat loose in small stacks. Later it was put in larger stacks or immediately threshed.<sup>31</sup>

Early efforts were made to cope with various insect pests and diseases that injured the wheat. The Hessian fly was a source of great losses. About 1811 a discovery was announced that the appearance of the fly could be prevented by soaking seed wheat in water at a temperature just below boiling. The "rem-

<sup>29</sup> Bordley, *Essays and Notes on Husbandry*, 100, 105; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842–43, Doc. 12)*, p. 6; *Farmers' Register*, I, 49; II, 612.

<sup>30</sup> *Country Gentleman*, XI, 365; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 144; 1850, pp. 194, 321; 1852, p. 75; *American Farmer*, 1 series, XV (1833–4), p. 65; *Valley Farmer* (Winchester, Va.), II, 17; Allardice, *Agricultural Tour*, 98; *Southern Cultivator*, IV, 17, 156; VIII, 85; *Farmer and Planter*, XI, 306; *Farmers' Register*, II, 14; VII, 383; *Dollar Farmer*, II, 43; *Southern Planter*, I, 155; *Tennessee Farmer*, I, 130; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842–43, Doc. 12)*, p. 6.

<sup>31</sup> *Southern Agriculturist*, XII, 49–50; Washington, *Diaries (Fitzpatrick)*, III, 91; Holcomb, *Address before the Montgomery County Agricultural Society*, Sept. 14, 1854, p. 4; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842–43, Doc. 12)*, p. 6. For threshing, see above, p. 799.



edy" probably proved unsatisfactory, for in 1839 it was proposed that the Maryland legislature offer a reward of \$50,000 for a method of eliminating losses from the fly. About 1854 farmers in northern Virginia were complaining of the ravages of the jointworm, and a convention was held at Warrenton, Virginia, to discuss methods of dealing with this pest, which threatened to compel the abandonment of wheat in that region. The convention recommended early sowing, use of guano, and the burning of stubble and trash.<sup>32</sup> Various attempts were made to deal with the problem of smut. Some endeavored to regulate the period of planting so that the crop might escape the disease. Others believed the trouble due to immature seed. Various remedies were tried, including dusting the seed with lime, soaking it in brine, washing in boiling water, and soaking in a solution of bluestone.<sup>33</sup> There was also much trouble with rust. As early as 1844 this was associated with the prevalence of barberry bushes.<sup>34</sup>

The prevalence of winter killing led to a number of experiments with spring wheat, some of it introduced from Tuscany. However, winter wheats continued to be principally employed.<sup>35</sup> Both white wheats and red wheats were grown, the former usually commanding a premium in the markets; and bearded and nonbearded types were employed. Rust and the ravages of the fly led to the introduction of many new varieties from abroad in an effort to find some that would escape damage, including Mediterranean wheats, and wheat from Poland, Australia, and California. Among the earliest types to attain popularity were the "purple straw" and "red bearded." Some farmers liked white "turkey wheat." A number of the widely advertised varieties, however, belonged to the class of agricultural humbugs.<sup>36</sup>

About the beginning of the nineteenth century Bordley declared that the average yield of wheat in the tidewater sections of Virginia and Maryland was only 6 bushels, and William Strickland estimated 5 to 6 bushels.<sup>37</sup> Thirty years later one of the best farmers of the James River valley, on alluvial land and by employing clover fallows, estimated his average yield at only 12 bushels.<sup>38</sup> Strickland reported the average yield for the piedmont section at 7 bushels, and 12 for the Valley.<sup>39</sup> Numerous reports indicate that with the introduction of clover and plaster the yields in northern Virginia were largely increased, probably

<sup>32</sup> *Southern Planter*, XIV, 246.

<sup>33</sup> *Agricultural Museum*, II, 113-115; *Farmer and Gardener*, V, 297; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 156; *idem*, *Early History of Agriculture in Virginia*, 14; *Dollar Farmer*, I, 23; *Southern Cultivator*, I, 23, 122; IV, 155; La Rochefoucauld, *Travels*, III, 242; *American Farmer*, 1 series, III (1821-2), p. 166; Jefferson, *Papers*, Vol. 88, No. 15177 (Manuscripts, Library of Congress); *Farmer and Planter*, IV, 78; *Southern Planter*, I, 5; XVI, 279; *Valley Farmer* (Winchester, Va.), II, 34; *Tennessee Farmer*, I, 129.

<sup>34</sup> *Southern Planter*, II, 160; IV, 161, 180; *Farmers' Register*, III, 382; X, 511; *Farmer and Planter*, X, 309.

<sup>35</sup> *Farmers' Register*, V, 270, 652; *Franklin Farmer*, II, 62, 145; *Argus of Western America* (Frankfort, Ky.), Sept. 1, 1837; *Southern Cultivator*, VI, 158; United States, Patent Office, *Annual Reports, Agriculture*, 1849, pp. 150, 152; 1850, p. 194; 1854, p. xiii.

<sup>36</sup> *Agricultural Museum*, I, 81, 86; Philadelphia Agricultural Society, *Memoirs*, IV, 208; *Virginia Herald* (Fredericksburg), July 23, 1817; *Farmers' Register*, II, 14, 181, 385; III, 382; VI, 129; VIII, 568, 610; X, 387, 511; *Franklin Farmer*, III, 35; *Southern Planter*, III, 214; X, 354; *Dollar Farmer*, II, 60; *Farmer and Planter*, I, 121; X, 309; Kentucky State Agricultural Society, *Report*, 1858-1859, p. 42.

<sup>37</sup> Bordley, *Sketches on Rotations of Crops*, 12; *Farmers' Register*, III, 263.

<sup>38</sup> Article by John A. Seldon, in *Farmers' Register*, VIII, 3.

<sup>39</sup> *Farmers' Register*, III, 263.

averaging for good farmers 20 to 25 bushels. Crops of 30 to 40 bushels were frequently reported, but the general average for northern Virginia and the Valley was probably under 15 bushels.<sup>40</sup> In the lower South yields were usually much smaller. Yields of 6 to 9 bushels were very common, while 15 bushels was considered a very large crop.<sup>41</sup>

#### OTHER SMALL GRAIN CROPS

The minor small grain crops also were grown to a far greater extent in the border States than in the lower South. Oats were produced in the coastal plain areas where land was too poor to permit wheat in the rotation. Throughout the farming regions they were grown as feed for horses. In the rice region, as already noted, they were sown every few years in the rice fields. In other parts of the lower South there was some tendency to sow winter oats to prevent erosion and provide pasturage. Both oats and rye were extensively grown in Tennessee to afford early spring pasture. Rye continued to be grown by the German farmers of western Virginia, Maryland, and North Carolina as a bread grain and by many farmers for the manufacture of whisky. In Kentucky it came to be employed also for early spring pasture. Some buckwheat was grown by the German farmers of the Great Valley and in Missouri, but it was considered an exhausting crop, and precarious because of uneven ripening. Barley was raised here and there for malt. In Gloucester, and probably other tidewater counties of Virginia, it was long second only to corn, but in the thirties it had largely declined in importance.<sup>42</sup> (See Table 52, Appendix.) The small grains other than wheat, however, were not continuously important commodities of exportation from any large producing region of the South. Small quantities of oats were shipped from points in Kentucky and Missouri to the lower South, and some Kentucky rye was sold in the form of whisky.<sup>43</sup>

#### FLAX AND HEMP

At the close of the colonial period flax and hemp were of considerable importance in the rural economy of the back-country farmers, and there was some commercial production. In 1791 about 3,000 hogsheads of flax seed were exported from Wilmington, North Carolina.<sup>44</sup> As late as 1819 hemp was said to be "a great article of export" from Virginia to the Northern States. It was

<sup>40</sup> *Farmers' Register*, II, 15; V, 8; *Southern Planter*, I, 119; XV, 56; *Niles' Register*, LXIX, 92; Warden, *Account of the United States*, II, 213; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 45, 71.

<sup>41</sup> United States, Patent Office, *Annual Reports*, 1847, pp. 124, 395; *Agriculture*, 1849, pp. 142, 145, 290; 1850, pp. 195, 321; 1851, pp. 323, 330; 1852, p. 75; 1855, p. 199; Olmsted, F. L., *Journey in the Back Country*, 352; *Country Gentleman*, XI, 365.

<sup>42</sup> *Southern Planter*, II, 164; VI, 166; XIX, 176; *Southern Agriculturist*, V, 113; VIII, 131; *Valley Farmer* (Winchester, Va.), II, 18; *Farmer and Planter*, II, 122; IV, 118; *Farmers' Register*, VI, 183; VIII, 41, 591; X, 387; *Tennessee Farmer*, I, 130; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 164; *idem*, *Early History of Agriculture in Virginia*, 12-16; Russell, R., *Culture of Carolina Rice*, 8; Mississippi, Agricultural and Geological Survey, *Report* (Wailes, 1854), p. 187.

<sup>43</sup> For local prices of the various cereal crops in Virginia prior to 1860, see Peterson, *Historical Study of Prices of Farm Products in Virginia*, 168.

<sup>44</sup> Washington, *Diaries* (Fitzpatrick), IV, 167.

raised for sale in upper South Carolina, especially between the Broad and Saluda rivers.<sup>45</sup> The extension of cotton, soil deterioration, and the increasing supply of cheap factory products led to a diminished reliance on the production of hemp and flax in the Southeastern States.

Flax continued to be raised by backwoods farmers, but on account of the large amount of labor required for the preparation of the fiber it was produced commercially only for seed.<sup>46</sup> As early as 1814 there were 28,902 gallons of linseed oil produced in Virginia, and 16,375 gallons in Maryland. Kentucky and North Carolina each produced about 5,000 gallons.<sup>47</sup> In 1849 the border States, including North Carolina and Tennessee, produced more than 60 per cent of the 7,709,676 pounds raised in the United States. Kentucky was the leading State, and Virginia second. By 1859, however, the industry had declined greatly in all of the border States, with a product only a little more than one third the amount produced a decade earlier.<sup>48</sup>

As early as 1790 hemp was being grown in the rich limestone areas of Kentucky. By 1810 it was "becoming the grand staple of Kentucky," and was being manufactured in large quantities for export.<sup>49</sup> Its production was probably greatly extended as a result of the unusually favorable prices from 1826 to 1828 inclusive, which averaged nearly \$7 a hundred at Louisville, as compared with only \$3.33 in the three years preceding 1826. In 1827 it was quoted for a short time as high as \$14 a hundred. For several decades it was one of the principal market products of the bluegrass areas of Kentucky, and was extensively grown in middle Tennessee, where as late as about 1840 its importance was increasing.<sup>50</sup> In the thirties the industry also became important in Missouri, where it was confined largely to the rich valleys of the Missouri and Mississippi, especially to Saline, Lafayette, Platte, and Pike counties.<sup>51</sup> In 1859 Kentucky and Missouri produced more than three fourths of the 74,493 tons of hemp raised in the United States.<sup>52</sup> Though hemp production continued to increase in the new lands of western Missouri, in the late forties and early fifties Kentucky planters began to abandon hemp in favor of wheat and other products. The hemp industry was afflicted with heavy competition from Russia and unsatisfactory and fluctuating prices. It is probable also that soil deterioration and the increasing scarcity of labor due to the Southwestern demand for slaves and emigration of labor to Texas and California were favorable to the adoption of the extensive industries of wheat growing and cattle raising in place of the more intensive industry.<sup>53</sup>

<sup>45</sup> Warden, *Account of the United States*, II, 212, 446.

<sup>46</sup> *Valley Farmer* (St. Louis), VI, 19.

<sup>47</sup> *Niles' Register*, VI, 329.

<sup>48</sup> United States, *Statistical View; A Compendium of the Seventh Census*, 173-174; *United States Census*, 1860, *Agriculture*, p. lxxxix; *Western Journal and Civilian*, V, 214-217.

<sup>49</sup> *Kentucky Gazette* (Lexington), May 3, 1790; *Agricultural Museum*, I, 46-48; Joynes, *Memoranda made on a Journey to Ohio and Kentucky* (William and Mary Quarterly, X), 225.

<sup>50</sup> *Louisville Public Advertiser* (Kentucky), 1823-1828, *passim*, especially Sept. 15, 1827; *Farmers' Register*, VIII, 41, 592-593.

<sup>51</sup> United States, *Compendium of the Sixth Census*, 308; Trexler, *Slavery in Missouri*, 23-25 & nn.; *Niles' Register*, LXV, 120; LXXIII, 62.

<sup>52</sup> *United States Census*, 1860, *Agriculture*, 187.

<sup>53</sup> Kentucky State Agricultural Society, *Reports*, 1857-1858, pp. 552-555; 1858-1859, p. 22; *Valley Farmer* (St. Louis), VII, 228; Trexler, *Slavery in Missouri*, 23-25 & nn.

Practically all the product of Kentucky and Tennessee was manufactured in the region of production into baling cloth and rope for the markets of the cotton States.<sup>54</sup> All but a small fraction was dew-rotted and greatly inferior to the water-rotted Russian product, particularly for the manufacture of naval cordage. About 1822 a machine for cleaning hemp without the necessity of rotting had been advertised, but apparently not widely adopted.<sup>55</sup> In the early forties there was a considerable agitation for purchase of American hemp by the American navy, and a resolution to that effect was passed by Congress. Naval authorities believed that the American product would become satisfactory if planted closer and properly water-rotted. There was a considerable agitation for the adoption of water-rotting. Many experiments were made with it, and there was undoubtedly some extension of the practice, but apparently it was found difficult to break down traditional methods.<sup>56</sup>

Hemp was usually sown broadcast on newly broken bluegrass meadows. Although the richest land was required, a good many planters believed the crop not very exhausting.<sup>57</sup> It was long the practice to pull the hemp by hand, a laborious operation suitable for only the strongest slaves. Subsequently Kentucky planters adopted the practice of cutting close to the ground with a specially shaped hemp hook. A few used cradles, but there was a general prejudice against them for cutting hemp. Harvesting machines were beginning to be tried in the last years of the period.<sup>58</sup> Breaking was a hand operation, with the old-fashioned hinged hemp break, and the average task per hand about 75 or 80 pounds a day. As early as 1815 Thomas Jefferson had invented a power machine for breaking hemp, and others were developed later, but the hand process continued to be generally employed. Scotching was not usually performed when hemp was grown for market.<sup>59</sup>

The normal product per acre was about 600 pounds. In Jefferson's time about 3 acres were raised per hand, but in 1836 it was said that 9 or 10 acres per hand could be made, and the crop did not interfere very much with the working of corn. It was considered that it could be grown profitably at \$5 a hundred pounds.<sup>60</sup>

#### GRASSES AND LEGUMES

About the close of the Revolutionary War mention is made of the shipment to Maryland of various kinds of grass seeds, including rye grass, burnet, red clover, white clover, rib-grass, and sainfoin.<sup>61</sup> In 1790 a Richmond paper contained

<sup>54</sup> *Farmers' Register*, VIII, 42; *Agriculturist*, II, 247.

<sup>55</sup> *Louisville Public Advertiser* (Kentucky), Apr. 3, 1822; *Kentucky Gazette* (Lexington), Jan. 10, Apr. 18, 1822.

<sup>56</sup> *Southern Planter*, IV, 105, 171; V, 204; *Dollar Farmer*, I, 73, 125, 188; II, 185, 188; *Virginia Herald* (Fredericksburg), Jan. 26, 1825.

<sup>57</sup> *Farmers' Register*, VIII, 41; IX, 135, 137; *Southern Planter*, I, 40.

<sup>58</sup> *Farmers' Register*, VIII, 592-594; IX, 136; *Dollar Farmer*, II, 96; *Valley Farmer* (St. Louis), VII, 374; *Western Journal and Civilian*, I, 141.

<sup>59</sup> Jefferson, *Writings* (Washington), VI, 506; *Valley Farmer* (St. Louis), VII, 374; *Farmers' Register*, IX, 137.

<sup>60</sup> *Tennessee Farmer*, I, 301; *Agriculturist*, II, 31; *Farmers' Register*, VIII, 42; IX, 137; Jefferson, *Farm Book*, 95 (Photostat copy, Library of Congress).

<sup>61</sup> British Museum, *Additional Manuscripts*, 15489, f. 110 (Transcripts, Library of Congress).

advertisements of Spanish broom seed, said to be excellent for improving washed or galled soils and to afford good shelter and winter browse for stock.<sup>62</sup>

Among the grasses used for pasture or cut for hay during the later decades were red clover, bluegrass, bermuda, lucerne, various marsh grasses, cowpeas, wild rye grass, timothy, foxtail, wild oat grass, orchard grass, and herd's grass, a term used for redbtop. Various other grasses and legumes were tried from time to time, including rice grass, coco grass, meadow oat, or Peruvian grass, Russian feather grass, Egyptian millet, guinea grass, burnet, sainfoin, gama-grass, Hungarian grass, crow foot, succory, chicory, broom grass, and lupines.<sup>63</sup>

In the meadows and pastures of the border States the principal grasses were red clover, white clover, orchard grass, redbtop, timothy, and winter rye, with blue grass in the limestone areas. On the Eastern Shore, the Magothy bean, as we have noted, entered largely into the farm economy, mainly as a fallow crop.<sup>64</sup> In northern Virginia and the Valley some farmers continued the practice of irrigating meadows.<sup>65</sup> When clover began to be more generally grown in lower Virginia, it was used mainly as a fallow crop, and but little hay was made. Indeed, it was said that few farmers in that region understood the art of making hay.<sup>66</sup> Red clover was generally sown in the early spring on wheat or rye. Kentucky and Tennessee were dependent on the States north of the Ohio river for most of their seed, though agricultural reformers urged the importance of raising it at home. Some of the farmers in northern Virginia and Maryland preferred "sapling" (mammoth) clover.<sup>67</sup> Bluegrass was the magical pasture grass of the limestone lands of the Valley, West Virginia, Kentucky, and the Nashville Basin. In some of these areas it was sown in the midst of woodlands.<sup>68</sup>

There were instances of the successful cultivation of clover in the lower South. In general, however, there was a firm belief among many planters that it was not favored by the climate or soils of that section, although it is probable failures were due in many instances to crude methods of sowing.<sup>69</sup> There was also a

<sup>62</sup> *Virginia Gazette and General Advertiser* (Richmond), Aug. 25, 1790.

<sup>63</sup> Virginia, Board of Agriculture, *Report* (*House Journal and Documents*, 1842-43, Doc. 12), p. 10; Jefferson, *Notes on Virginia* (Ford, 1894), p. 63; *idem*, *Papers*, Vol. 98, Nos. 16813-16815; Vol. 99, No. 16927 (Manuscripts, Library of Congress); *Dollar Farmer*, I, 176; *Southern Cultivator*, II, 93; V, 159; VIII, 41; XV, 11-12, 235, 245; XVI, 73, 342; *Southern Planter*, XVII, 399; *American Agriculturist*, I, 215; IV, 155; United States, Patent Office, *Annual Reports, Agriculture*, 1849, pp. 169, 291-293; 1850, pp. 195, 351; 1852, p. 71; 1854, pp. 188-190; 1855, pp. 252, 256; Lynchburg Agricultural and Mechanical Society, *Journal of Transactions*, 1858, p. 44; *Farmer and Gardener*, I, 115; III, 162; *North Carolina Chronicle or Fayetteville Gazette*, Sept. 27, Oct. 4, 1790; *Farmer and Planter*, II, 26; Johnson, W., *Nugae Georgicae*, 21; Pendleton Farmers' Society, 155; *Farmers' Register*, I, 286; IV, 582; V, 216; *Carolina Planter* (1844-5), I, 116; *Southern Agriculturist*, VII, 520-527; new series, I, 175; IV, 87; *North Carolina Farmer*, II, 49.

<sup>64</sup> *Farmers' Register*, III, 234; V, 216, 331; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 142; *Second Biennial Report*, 1856-1857, p. 415; *Tennessee Farmer*, I, 178; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 96, 544, 550; *Agriculturist*, II, 147; IV, 126.

<sup>65</sup> *Southern Planter*, XX, 193.

<sup>66</sup> Virginia, Board of Agriculture, *Report* (*House Journal and Documents*, 1842-43, Doc. 12), p. 10; *Farmers' Register*, III, 28; X, 337, 365; *Southern Planter*, II, 249.

<sup>67</sup> *Farmers' Register*, X, 85; *Franklin Farmer*, II, 182, 338; III, 374; *Western Farm Journal*, I, 164; *Farmer and Gardener*, I, 201; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 92.

<sup>68</sup> *Farmers' Register*, VIII, 317; X, 85, 121; *Agriculturist*, II, 37; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 141.

<sup>69</sup> *Carolina Planter* (1844-5), I, 274-276; *Farmers' Register*, IV, 287; VII, 383; VIII, 362; X, 85, 120, 336; North Carolina, Geological Survey, *Report* (Emmons, *Agriculture of the Eastern Counties*, 1858), p. 183; *Southern Cultivator*, VI, 4, 27, 83; *Soil of the South*, VI, 3; *Southern Agriculturist*, I, 250, 549; *Agriculturist*, III, 65; *North Carolina Farmer*, II, 49; *Farmer and Planter*, I, 18; II, 82; IV, 79; V, 203.

strong prejudice against bermuda grass, on account of the difficulty of eradicating it from cultivated fields. It was found particularly serviceable as a covering for embankments. Agricultural reformers urged the desirability of bermuda as a pasture grass because of its resistance to drouth, and a few advocated it as a fallow crop. These arguments were not without their effect, and bermuda pastures began to be laid down in increasing numbers. Crab grass was another pest also largely used for pasturage, and sometimes for hay.<sup>70</sup> With the exception of corn blades, the cowpea was the most widely employed forage crop in the lower South, as well as in southeastern Virginia and eastern North Carolina. Gradually its merits, both as a forage crop and as a fertilizing crop, came to be more and more appreciated.<sup>71</sup> Cowpeas were commonly sown in the cornfield, either after the second plowing or after the corn crop was laid by. Some recommended sowing them immediately after the harvesting of small grain, on account of their usefulness in crowding out weeds, shading the land, and opening up the soil. Oftentimes stock were pastured on the peas. The vines were also gathered for hay, but they were regarded as somewhat difficult to cure. Some planters considered the curing was facilitated by sprinkling salt on the several layers, which were kept separate by rails or straw.<sup>72</sup>

#### FRUIT AND GARDEN PRODUCTS

There are indications that the devotion to cotton and the tendency to migrate to new lands were responsible for increasing neglect of orchard planting, so that there was less abundance of fruit than before the commercialism of the nineteenth century supplanted the self-sufficiency of the earlier time.<sup>73</sup> Nevertheless, prior to 1850 there were some serious attempts to stimulate the successful practice of horticulture.

From time to time the idea of developing an extensive vineyard industry, which had intrigued the minds of men in the colonial period, gave rise to the establishment of vineyards. Toward the close of the eighteenth century Benjamin Waring, of South Carolina, conducted experiments in viniculture near Columbia.<sup>74</sup> Early in the nineteenth century the United States Government made a special grant of land in Marengo County, Alabama, to a colony of refugees, most of whom were formerly attached to the cause of Napoleon. The conditions of the grant required the culture of the grape and the olive, but the enterprise proved a dismal failure.<sup>75</sup> About 1803 a Kentucky company undertook

<sup>70</sup> Cotting, *Essay on the Soils and Available Manures of Georgia*, 69; *Southern Agriculturist*, III, 74, 580; *American Agriculturist*, IV, 143; *Southern Cultivator*, III, 107; VI, 69, 135; XV, 76; XVI, 130, 208.

<sup>71</sup> Ruffin, *Essays and Notes on Agriculture*, 368-390; Jefferson, *Papers*, Vol. 100, No. 17203 (Manuscripts, Library of Congress); *Farmer and Planter*, III, 184; *Pendleton Farmers' Society*, 138-140, 153; *Carolina Planter* (1844-5), I, 274-276; *Southern Agriculturist*, III, 191; VIII, 453; new series, V, 430.

<sup>72</sup> United States, Patent Office, *Annual Report*, 1851, *Agriculture*, 354; Ruffin, *Essays and Notes on Agriculture*, 365, 406; *Dollar Farmer*, III, 99; *Carolina Planter* (1844-5), I, 76; North Carolina State Agricultural Society, *Transactions*, 1857, p. 7; *Southern Agriculturist*, VIII, 338; new series, II, 361.

<sup>73</sup> United States, Patent Office, *Annual Reports*, 1847, p. 380; 1850, *Agriculture*, 355; Smith, N. F., *History of Pickens County*, 207; *Southern Cultivator*, VI, 175; XV, 94; *Country Gentleman*, III, 263; *Southern Planter*, III, 22. For interest in orchards at close of eighteenth century, see *Farmers' Register*, II, 612; Smith, J. G., *Eastern Tennessee*, 12.

<sup>74</sup> Drayton, *View of South Carolina*, 212.

<sup>75</sup> Chapron, *Memorial in Behalf of the French Emigrants to Alabama engaged in Cultivation of the Vine and Olive*; United States, Patent Office, *Annual Report*, 1854, *Agriculture*, p. xxviii; Darby, *Emigrant's Guide*, 22.

the establishment of vineyards, under the direction of a native of Switzerland.<sup>76</sup> In the early years of the fourth decade M. Herbemont, of Columbia, South Carolina, and Messrs. Guignard and Maverick, of the same State, attempted to develop the wine industry. One Abraham Geiger was reported to have made 6,500 gallons in a single year. Although their enterprises were not successful, they proved that failure was due to the attempt to cultivate foreign varieties rather than native varieties. About 1820 Major Adlum, of North Carolina, domesticated the Catawba grape, a native of that State, later successfully cultivated near Cincinnati by Mr. Longworth.<sup>77</sup> Following in the footsteps of M. Herbemont but avoiding his mistakes, several other South Carolinians developed successful vineyards in the Aikin district. The most successful were A. de Caradeuc and Doctor McDonald. The former operated a vineyard of 17 acres, and the latter, one of about 40 acres. Their success attracted a great deal of attention throughout the South and stimulated interest in horticulture. Other vineyards were started in the latter part of the fifth decade, but the war put an end to these enterprises.<sup>78</sup> In the neighborhood of Hermann, Missouri, a colony of Germans developed a wine industry with an annual product of about 100,000 gallons a year.<sup>79</sup>

Shortly before 1850 there began a revival of interest in fruit cultivation, which continued until the Civil War. Many planters set out new orchards for home use and began to consider the possibilities of commercial production. It was a period when there was much interest in the North in fruit growing, and new varieties were being introduced from different parts of the earth.<sup>80</sup> In the South a considerable number of nurseries sprang up, and pomological societies were organized in many districts. Special efforts were made to develop native varieties and to introduce varieties adapted to Southern conditions. Experiments were conducted in the lower South with winter apples and pears, and the belief that the climate was not suitable for their production was declared to be without foundation.<sup>81</sup>

There was some progress in commercial production. In the Carolinas the cultivation of fruit for the New York market was begun on a considerable scale. Large peach orchards were established on the several railroads leading to Savannah, Charleston, and Norfolk, and thousands of bushels were annually shipped to Northern markets. The adaptability of the Eastern Shore to peaches was

<sup>76</sup> Warden, *Account of the United States*, II, 338.

<sup>77</sup> *Southern Agriculturist*, VI, 73, 157; VII, 457; United States, Patent Office, *Annual Report*, 1849, *Agriculture*, 187; *Southern Cultivator*, XV, 97. A few other attempts at wine production were made in Virginia in the early thirties by Mr. John Carter and Mr. William Anderson. *American Farmer*, 1 series, XV (1833-4), p. 41.

<sup>78</sup> United States Agricultural Society, *Journal*, VIII, 186; *Southern Cultivator*, XV, 98, 288; XVI, 312.

<sup>79</sup> *De Bow's Review*, XXVI, 86; *Valley Farmer* (St. Louis), V, 121; IX, 251; United States Agricultural Society, *Journal*, VII, 386.

<sup>80</sup> *Valley Farmer* (St. Louis), XII, 284; *Southern Planter*, IX, 34; XV, 51; Kentucky State Agricultural Society, *Report*, 1858-1859, p. 123; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 255.

<sup>81</sup> *Tennessee Farmer*, I, 176; *Southern Planter*, XV, 51; Kentucky State Agricultural Society, *Report*, 1858-1859, p. 124; *Country Gentleman*, II, 11; V, 346; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 145; 1850, p. 215; 1854, p. 277; *Southern Cultivator*, XV, 31, 125; XVI, 256, 349; *De Bow's Review*, XVIII, 49; XXVIII, 348; XXIX, 790; Alabama Historical Society, *Transactions*, 1855, p. 50.

early recognized, and some development occurred.<sup>82</sup> About 1855 a peach farm in this region shipped 70,000 baskets to market. The advantages of the foothill country of Virginia and North Carolina for the production of apples were beginning to be known, and the superior qualities of the Albemarle pippin recognized.<sup>83</sup> The possibilities of strawberry production along the South Atlantic coast were also being explored.<sup>84</sup>

From an early period, as we have noted, oranges had been grown in South Carolina, Georgia, and Florida, mainly for home consumption. In the late years of the eighteenth century frequent snows destroyed a large proportion of the trees along the South Carolina coast, as they had been destroyed from time to time during the colonial period. In the early years of the next century planters began to graft the sweet oranges on the hardy sour orange. In 1824 it was stated that there were "no complete orange groves" in Florida, but that many people were establishing them "on a large scale." In the late thirties a minute insect destroyed the orange groves of South Carolina and a few years later spread into Florida.<sup>85</sup> About 1859 experiments in the raising of lemons were again being carried on in Florida.<sup>86</sup> Planters along the Carolina-Georgia coast and the Gulf coast also produced figs and nectarines for home use, in addition to the common orchard and garden fruits.<sup>87</sup>

Statistics of orchard products were not included in the census of 1860, but in 1849 the value of orchard products of the South was \$1,365,927, as compared with \$7,723,186 for the United States. Missouri was the leading State. In the same year the South produced 44,252 gallons of wine, as compared with a total of 221,249 for the entire United States.<sup>88</sup>

After the Revolutionary War there appears to have been an awakened interest in gardening, especially in eastern South Carolina. Ramsay remarked that although Charleston formerly imported cabbages, potatoes, onions, and other garden products, the interest in gardening had so greatly increased in the past twenty years that the markets of Charleston were being abundantly supplied with vegetables. A Mrs. Martha Logan reduced the knowledge she had acquired through long experience to a regular system, which she published under the title of *The Gardener's Kalendar*. In Ramsay's day this work was still largely regulating "the practice of gardens in and near Charleston."<sup>89</sup> Another person who did much to promote gardening was Robert Squibb, who made a practice of collecting and circulating rare native products and published a manual on garden-

<sup>82</sup> *Southern Planter*, V, 1; *Farmer and Planter*, I, 29; Philadelphia Agricultural Society, *Memoirs*, I, 190; *Valley Farmer* (St. Louis), IX, 312; *Southern Cultivator*, XVI, 256.

<sup>83</sup> Buckley, "Mountains of North Carolina and Tennessee," in *American Journal of Science and Arts*, XXVII, 293; *Southern Planter*, III, 22.

<sup>84</sup> *Southern Agriculturist*, IX, 637.

<sup>85</sup> Johnson, W., *Nugae Georgicae*, 22; *Louisiana Gazette* (New Orleans), Sept. 9, 1824; Bachman, *Inquiry into the Nature and Benefits of an Agricultural Survey of South Carolina*, 37.

<sup>86</sup> United States Agricultural Society, *Journal*, VII, 385.

<sup>87</sup> *Southern Agriculturist*, III, 185; V, 58; Bachman, *Inquiry into the Nature and Benefits of an Agricultural Survey of South Carolina*, 37.

<sup>88</sup> United States, *Statistical View: A Compendium of the Seventh Census*, 172, 174.

<sup>89</sup> *History of South Carolina*, II, 227, 230.



ing.<sup>90</sup> About 1786 the French Government sent the distinguished botanist, Charles Michaux, to America to collect and experiment with various plants that might be useful to France. He established a botanical garden near Charleston, and for upwards of fifteen years was engaged in transplanting to it rare plants collected in various parts of the United States.<sup>91</sup>

Rough and ready gardening for home consumption was practiced by the majority of farmers and planters of the border States, but absorption in cotton production led many planters in the lower South to neglect the raising of vegetables. In 1828 a South Carolina paper declared that "a good garden was rather a rare sight on very many plantations." About 1829 vegetables were said to be too scarce and high for common use in Charleston, and the high prices stimulated "Yankee" importations by shiploads.<sup>92</sup> A quarter of a century later, however, the situation had been reversed, for the depression of the forties revived interest in gardening. The markets of Charleston and Savannah were "pretty well supplied" with vegetables in winter, and a considerable trade had developed in the shipment of early vegetables, including Irish potatoes, to Northern cities. By the fourth decade farmers in the Norfolk area, as well as the lower counties of the Eastern Shore, were producing considerable quantities of watermelons and other truck crops for Northern markets.<sup>93</sup>

#### MISCELLANEOUS CROPS

Irish potatoes were cultivated throughout the general farming regions of the border States for home use, and gradually gained in favor. They were raised for market only in the neighborhood of a few large cities, including Baltimore and Louisville, which shipped Irish potatoes to New Orleans, and in the South Atlantic trucking areas.<sup>94</sup>

Sweet potatoes were not an important market crop except in the Norfolk trucking area and the lower counties of the Eastern Shore, but they were raised for home use by a large proportion of the planters and farmers of the lower South. They were a principal food product in the eastern part of the Carolinas and Georgia and in the sandy lands of the Gulf coastal plain. They occupied frequently a paramount position in the diet of the poorer classes, being used for many purposes ranging from bread to beer. They were an important contribution to the diet of slaves, and they were frequently employed to supplement corn in the fattening of stock. Crops of 400 to 600 bushels per acre were occasionally reported, and in one instance 1,000 bushels, but ordinary yields ranged from 100 to 200. Considerable study was given to the problem of preserving them. Some farmers constructed special sheds for the purpose, but the majority

<sup>90</sup> *The Gardener's Calendar for the States of North Carolina, South Carolina, and Georgia*. A later gardening manual, *Gardening for the South*, was prepared by W. N. White.

<sup>91</sup> Ramsay, *History of South Carolina*, II, 229; cf. La Rochefoucauld, *Travels*, II, 434.

<sup>92</sup> *Southern Agriculturist*, I, 540; II, 200.

<sup>93</sup> Russell, R., *Culture of Carolina Rice*, 17; *Farmers' Register*, IV, 527; VI, 574. See below, p. 922.

<sup>94</sup> *Farmer and Gardener*, III, 383; Kentucky State Agricultural Society, *Report*, 1858-1859, p. 123; *Southern Agriculturist*, V, 127.

banked them with a covering of straw, tan bark, or pine needles, topped with dirt.<sup>95</sup>

Peanuts came to be a crop of considerable importance but mainly as feed for hogs and to furnish hay, rather than for sale. From the neighborhood of Wilmington, North Carolina, 80,000 to 100,000 bushels were exported to Northern markets. They were beginning to be raised for market along the Tennessee river, in west Tennessee. Before the Civil War the practice of raising peanuts for domestic use had spread throughout the Southern States. They were grown in the midst of corn; and hogs were turned in to fatten on the nuts. The vines were regarded as useful for soil improvement, as well as for hay.<sup>96</sup>

An account of Southern crop production is not complete without taking note of the numerous crops that were tried without obtaining an important foothold. As in the colonial period, some of these experiments aroused a great deal of enthusiasm and large expectations. One of the most notable instances was the attempt to introduce the production of silk, in spite of the earlier experience of Georgia and other Colonies. At various times during the post colonial period the idea of silk production was agitated, though with comparatively small influence.<sup>97</sup> During the last half of the fourth decade a "craze" developed for the planting of the white and the Chinese mulberry (*morus multicaulis*) and engaging in silk culture. It is doubtful if there has ever been so intense and extravagant an agricultural mania in the United States. The excitement started in the late years of the third decade in the North, promoted largely by Gideon B. Smith, of Baltimore. It was based on the old fallacy of a large product per acre, without due consideration to the labor involved. Soon the papers were full of accounts of remarkable returns per acre obtained by those who had undertaken the new industry. The public mind was worked up to a stage where a complete industrial revolution was looked for. A number of States competed in providing liberal subsidies to growers and in the establishment of silk factories. The Government of the United States issued a silk manual, which was widely circulated. Numbers of silk journals were established, and many silk societies sprang into existence.<sup>98</sup>

About the middle of the fourth decade the Southern press began to spread the news of the great prospects of sudden riches through silk culture,<sup>99</sup> and the excitement spread rapidly. Hundreds of thousands of mulberry trees were planted in the next few years. Silk companies were formed to plant mulberry orchards and raise silkworms. Southern mulberry nurseries were established

<sup>95</sup> *Farmers' Register*, III, 238; IV, 298; X, 337; *Farmer and Planter*, II, 101; *Southern Cultivator*, VI, 53; United States, Patent Office, *Annual Reports*, 1847, p. 380; 1854, *Agriculture*, 169; Claiborne, J. F. H., *Trip through the Piney Woods* (Miss. Hist. Soc., Publications, IX), 533. On methods of cultivation, see *Farmer and Planter*, I, 98; VII, 245; Walker, C. I., *History of the Agricultural Society of South Carolina*, 59; Allston, *Essay on Sea Coast Crops*, 25; *Farmer and Gardener*, II, 273; *Southern Agriculturist*, II, 109, 313; III, 285; V, 587.

<sup>96</sup> United States Agricultural Society, *Journal*, VIII, 416; *Valley Farmer* (St. Louis), VII, 379-381; *Hunt's Merchants' Magazine*, XV, 426; XXXVII, 772; *Southern Cultivator*, VI, 40; Burke, E. P., *Reminiscences of Georgia*, 126.

<sup>97</sup> *Agricultural Museum*, II, 9; *Southern Agriculturist*, I, 127; II, 454; *American Farmer*, XIV, 353, 369; United States, Patent Office, *Annual Report*, 1854, *Agriculture*, 90.

<sup>98</sup> United States, Dept. Treas., *Growth and Manufacture of Silk*; *Tennessee Farmer*, I, 147-149; *Farmers' Register*, III, 433, 674, 677; IV, 126, 168; V, 68-70; VIII, 36.

<sup>99</sup> *Ibid.*, I, 152; IV, 251; VII, 123-127; *Franklin Farmer*, II, 12.

in several places, although large numbers of trees were purchased from the North. In 1839 a speculative mania in mulberry trees developed. By that time the demand so far exceeded the supply that trees were bought and sold speculatively for future delivery. Short-selling developed, and one man advertised the delivery of five million trees he did not yet own.<sup>100</sup> Charlatans took advantage of the craze to sell fish roe for silkworm eggs.<sup>101</sup> Cocooneries and silk factories were established in a number of Southern cities. The Georgia legislature voted bounties. Two silk journals and a number of silk societies aided in promoting the excitement.<sup>102</sup> In the Fall of 1839 a sudden contraction of credit brought about a failure of the large dealers in mulberry trees, and very soon the small dealers became panic-stricken and threw their trees on the market at any price.<sup>103</sup> Sanity began to return during the early years of the next decade, although some clung to the idea that silk could be profitably produced by the labor of super-annuated slaves and children.<sup>104</sup>

Another craze arose concerning "Chinese sugar cane," or sorghum, the seed of which was brought to the United States in 1854. Almost immediately a great excitement arose, due to the exorbitant claims concerning the new discovery, particularly the belief that sugar could be produced from sorghum in all parts of the United States. By 1857 or 1858 the delusion was over. Unlike silk, however, sorghum became an important addition to the list of Southern products, the cane as feed for stock and the syrup as a cheap and welcome addition to the diet of slaves. The Imphee, or African, sorghum cane was introduced just before the war, and largely displaced the Chinese variety.<sup>105</sup>

At various times experiments were made in the cultivation of tea in South Carolina. The last experiment, about 1855, was declared a failure because, as it was explained, "Wages are too high in this country. We cannot afford to pick, roll up, and dry any sort of leaves here for half a dollar per pound."<sup>106</sup>

Turnips, rutabagas, and sugar beets had their advocates for use in stock feeding, and the last named crop was urged as a staple for sugar production. The greater advantages of corn as a feed and rotation crop, the excessive labor requirements of the root crops, and the tendency for them to dry up during the long drouthy summers prevented them from being widely adopted.<sup>107</sup>

<sup>100</sup> *Farmers' Register*, I, 230; III, 677; V, 70; VI, 389, 392, 464, 497-504; VII, 60-63, 191, 380; *Agriculturist*, II, 69; *Carolina Planter* (1840), p. 221; *Farmer's Advocate*, I, 95; *Southern Silk Journal and Farmers' Register*, I, 44-46; *Farmer and Gardener*, II, 273, 286.

<sup>101</sup> *Southern Agriculturist*, XII, 479.

<sup>102</sup> *Farmers' Register*, IV, 127; VI, 451; VII, 202, 380; VIII, 36; *Agriculturist*, II, 40, 61; IV, 26; *Southern Agriculturist*, XII, 621; *Franklin Farmer*, II, 358; III, 2; *Southern Silk Journal and Farmers' Register*, I, 9; *Journal of the American Silk Society and Rural Economist*, I, 1, 3; *Farmer's Book, or the Western Maryland Farmer*, I, 34; *Carolina Planter* (1840), pp. 89, 221.

<sup>103</sup> For a consecutive account of this episode, see the *Agriculturist*, IV, 146-148; *Journal of the American Silk Society and Rural Economist*, I, 325.

<sup>104</sup> *Southern Agriculturist*, new series, III, 144; V, 28; *Farmers' Register*, VI, 50, 465; VIII, 510; *Carolina Planter* (1840), p. 89.

<sup>105</sup> Kentucky State Agricultural Society, *Report*, 1856-1857, p. 287; *Southern Cultivator*, XV, 11, 21, 120, 210; *Hunt's Merchants' Magazine*, XXXV, 625; XXXVII, 772; United States Agricultural Society, *Journal*, V, 16; North Carolina State Agricultural Society, *Transactions*, 1857, p. 8; Hammond, H., "The Century in Agriculture," in the *Charleston News and Courier*, Centennial ed., 1803-1903, p. 33.

<sup>106</sup> *Southern Cultivator*, XV, 156; *Southern Agriculturist*, I, pp. iv, 18.

<sup>107</sup> *Franklin Farmer*, III, 116, 123; *Farmers' Register*, II, 395-398; VII, 755-757; VIII, 360; X, 338; *Southern Planter*, I, 25; V, 38; *Southern Agriculturist*, III, 393; new series, I, 102.

In South Carolina the culture of indigo continued on a small scale in the Orangeburg district until the Civil War. It was said to be grown successfully on light sandy lands that would make but a small yield of cotton. In 1842 the total product of the district amounted to 35,936 pounds.<sup>108</sup> A little was reported from Tennessee in the early years of that State.<sup>109</sup> It was grown in backwoods areas for domestic use. Various unsuccessful attempts were made by agricultural reformers to revive the commercial industry.<sup>110</sup>

Many other crops were tried out in different parts of the South. About 1819 hops were grown in small quantities in South Carolina,<sup>111</sup> probably a remnant of the earlier domestic production of beer. In the thirties the Maryland State geologist worked up considerable enthusiasm for the planting of palma Christi on the Eastern Shore, and a number of castor oil mills were established there. It was also tried in Elizabeth City County, Virginia.<sup>112</sup> Along the South Carolina coast, olive trees, some of them planted in the colonial period, continued to thrive for several decades, but they appear to have been largely destroyed by the unusually severe winter of 1835-36.<sup>113</sup> Broom corn was at times an object of interest, and attention was turned from time to time to basket willows, madder, which in the early decades was grown sporadically for local use, and Jerusalem artichokes.<sup>114</sup>

<sup>108</sup> *Southern Agriculturist*, I, 64; III, 566; *Southern Cultivator*, VIII, 20; *Hunt's Merchants' Magazine*, XXVII, 754; *De Bow's Review*, XII, 175; South Carolina, Geological Survey, *Report* (Tuomey, 1848), App., p. xxxiii.

<sup>109</sup> Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 304.

<sup>110</sup> *Southern Agriculturist*, I, 64; *Southern Cultivator*, VI, 15; *Dollar Farmer*, II, 121.

<sup>111</sup> Warden, *Account of the United States*, II, 213, 446; *Southern Agriculturist*, IX, 466.

<sup>112</sup> *Farmers' Register*, III, 237; IV, 298.

<sup>113</sup> Johnson, W., *Nugae Georgicae*, 27; Warden, *Account of the United States*, II, 446; *Southern Agriculturist*, I, 108; King, *History and Culture of the Olive*, 9-13, 17; Mills, *Statistics of South Carolina*, 150.

<sup>114</sup> *Virginia Herald* (Fredericksburg), June 6, 1827; *Southern Planter*, XI, 24; XX, 244; *Farmer and Planter*, XI, 179; *North Carolina Chronicle or Fayetteville Gazette*, Oct. 11, 1790; Mills, *Statistics of South Carolina*, 154.

## CHAPTER XXXV

### LIVESTOCK HUSBANDRY IN THE POST COLONIAL PERIOD

Number of Livestock in the Southern States in Different Periods, 831. Types of Livestock Husbandry in Various Regions, 833. Markets and Marketing, 839. Feeding and General Care, 842. Development of Interest in Improved Breeds, 845. Breeds of Cattle, 848. Breeding of Horses and Mules, 850. Breeds of Hogs, Sheep, and Goats, 853. Improvement of Breeds in Various Regions, 853.

#### NUMBER OF LIVESTOCK IN THE SOUTHERN STATES IN DIFFERENT PERIODS

In 1860 animal husbandry, as measured by numbers of stock, was more important in the South than in all the rest of the United States. (See Appendix, Table 53.) The South contained one half the neat cattle of the United States, more than 60 per cent of the swine, nearly 45 per cent of the horses, 52 per cent of the oxen, nearly 90 per cent of the mules, nearly one third of the sheep, and more than one half the poultry measured by value. There was little commercial dairying, but the South contained 40 per cent of the dairy cows of the United States, produced 19.7 per cent of the butter, but only 1.2 per cent of the cheese.<sup>1</sup>

In 1840 the seven border States<sup>2</sup> had over 68 per cent of the horses and mules in the South, exclusive of Texas. By 1860, however, the proportion had declined to less than 62 per cent. While every State in the South showed an increase in number of horses and mules during the twenty years, the rate of increase was much higher in the rapidly developing States of the lower South. The rapid expansion of the plantation system in Texas was reflected in a more than fourfold increase in horses and mules. In Virginia and Maryland there were considerable decreases from 1840 to 1850, somewhat more than offset by increases in the following decade.

In 1840 the border States included approximately 53 per cent of all the cattle in the South. By 1860 the proportion had decreased slightly, and would have decreased still more but for the large gain of Missouri, where the number of cattle increased nearly threefold. In none of the other border States was there a notable increase, while Tennessee lost heavily. All the States of the lower South made substantial increases, except South Carolina, where the number increased considerably from 1840 to 1850, but, if we may believe the census, was smaller in 1860 than it had been in 1840. The increase was especially notable in the newly developed States, Florida and Arkansas. Texas, which did not enter the Union until after the census of 1840, showed a fourfold increase in number of cattle in the decade 1850 to 1860, and by the latter year had more than a fourth of the cattle of the South.

In 1840 the border States had a much greater preponderance in number of swine, 66 per cent of the total for the South. By 1860, however, the percentage

<sup>1</sup> *United States Census, 1860, Agriculture, 184.*

<sup>2</sup> Including North Carolina and Tennessee.

had decreased to 57, excluding Texas. A large increase in Missouri and a substantial increase in North Carolina were practically offset by large decreases in Virginia and Tennessee and a smaller decrease in Maryland, while the number in Kentucky was virtually the same in 1860 as in 1840. In Kentucky and Tennessee a large increase from 1840 to 1850 was followed by a large decrease in the succeeding decade. On the other hand, there were large increases in number of swine in all the States of the lower South, the percentage of increase being especially notable in Arkansas, Florida, and Louisiana. The number of swine in South Carolina decreased from 1850 to 1860, but not enough to offset the increase of the preceding decade. The number of swine in Texas approximately doubled in the decade 1850 to 1860. (Appendix, Table 53.)

In 1840 nearly 82 per cent of the sheep of the South were in the border States. During the next decade there was a considerable increase in every Southern State, except in Maryland. This general increase corresponded to a similar tendency throughout the Middle West, due to favorable prices for wool, and low prices of other agricultural products. In the lower South the agitation of agricultural reformers in favor of the sheep industry,<sup>3</sup> combined with the low prices of cotton, resulted during the fifth decade in an increased interest in sheep raising. The increase was much more notable in the lower South than in the border States, except in the rapidly developing commonwealth of Missouri. After 1847 general conditions were less favorable to the industry in the Middle West, the border States of the South, and the eastern States of the lower South. Only in Missouri, Arkansas, and Louisiana were the increases from 1850 to 1860 notable. There were small gains in Florida and Mississippi, but decreases in all the other States. The percentage in the border States decreased to 72.<sup>4</sup> In Texas the number increased more than sevenfold in the decade 1850 to 1860. Just before the Civil War, however, sheep were beginning to command renewed attention in the piedmont section of Virginia.<sup>5</sup> As in the colonial period, the dog nuisance continued a serious handicap, for every Negro family and every poor white family had canine pets. There was agitation for legislation to deal with the nuisance, but legislators were exceedingly timid on this subject, and legislation was either lacking or generally ineffective.<sup>6</sup> Moreover, there was a strong prejudice in the South against mutton, a prejudice that must have been widespread, judging from frequent references to it.<sup>7</sup> Goats were kept in large numbers, and because of their greater hardihood they were even preferred in some cases to sheep.

<sup>3</sup> *Prairie Farmer*, VIII, 270; *Southern Cultivator*, V, 184; VI, 44; cf. Wright, C. W., *Wool Growing and the Tariff*, 132-135.

<sup>4</sup> *De Bow's Review*, XII, 584; United States, Patent Office, *Annual Reports, Agriculture*, 1850, pp. 220, 233; 1854, pp. 55, 207; *Hunt's Merchants' Magazine*, XXXI, 762; *Southern Planter*, V, 35, 68; *Southern Agriculturist*, new series, V, 302; Wright, C. W., *Wool Growing and the Tariff*, 134, 144, 153-155; *Valley Farmer* (St. Louis), II, 10.

<sup>5</sup> United States Agricultural Society, *Journal*, VIII, 274.

<sup>6</sup> Taylor, G., *Voyage to North America*, 229; Raynal, *British Settlements and Trade in North America*, 137; Gilmer, G. R., *First Settlers of Upper Georgia*, 179; United States, Patent Office, *Annual Reports*, 1845, p. 1017; *Agriculture*, 1849, pp. 135, 161; *Southern Agriculturist*, II, 223; *Southern Cultivator*, VI, 2, 44; *Farmer and Planter*, II, 165; III, 158; V, 301; XI, 87; Wright, C. W., *Wool Growing and the Tariff*, 135; *The Arator*, II, 640; *Southern Planter*, XVI, 248; *Alabama Session Laws*, 1860, p. 45.

<sup>7</sup> *Southern Cultivator*, VI, 66; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 233.

They furnished a convenient source of fresh meat in a region where there were few markets that justified the butchering of neat cattle.<sup>8</sup>

#### TYPES OF LIVESTOCK HUSBANDRY IN VARIOUS REGIONS

The livestock industry in the various parts of the South ranged from commercial herding on a large scale, through incidental herding for domestic uses and incidental animal husbandry as a phase of mixed farming, up to the highly specialized and intensive methods of animal husbandry.

While it is improbable that large-scale commercial herding was a stage in the evolution of every community as the tide of settlement moved westward, the running of stock on the open range as a phase of pioneer farming or the transition stage between herding and farming<sup>9</sup> prevailed at some time in practically all parts of the South. Thus, we find reports of open range pasturing of stock in the pioneer stages of such widely separated regions as the lower Mississippi, the Valley of Virginia, the interior of Alabama and Georgia, Arkansas, the Missouri valley, and the bluegrass region of Kentucky.<sup>10</sup> The prevalence of pioneer range conditions in the last mentioned region is emphasized by numerous advertisements of lost, strayed, or stolen stock in the last decade of the eighteenth century.<sup>11</sup> One of these advertisements took the form of the following rhythmical complaint:<sup>12</sup>

"Two Dollars good you may receive,  
If from my los you'll me relieive;  
An old black mare, and a bay foal,  
Which in last June have run or stolen,  
A blaze white face with white hind feet  
And when she trots she goes compleat.  
Fourteen hands high and twelve years old,  
The printer can my name unfold."

In addition to communities that temporarily witnessed the stage of herding, there were a number of areas where herding persisted throughout the ante bellum period. In the parishes of southwestern Louisiana, the herding industry, begun during the French occupation, continued the principal industry. Some of the larger owners annually branded 3,000 to 5,000 cattle. The registration of brands was required by law.<sup>13</sup> About 1850 it was declared of northern Florida:<sup>14</sup>

<sup>8</sup> Olmsted, F. L., *Journey in the Back Country*, 225.

<sup>9</sup> See above, pp. 138, 200, 438.

<sup>10</sup> For example, see La Rochefoucauld, *Travels*, III, 149; Warden, *Account of the United States*, III, 16, 149; Pope, *Tour*, 49, 64; Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), p. 129; Buttrick, *Voyages* (Thwaites, *Early Western Travels*, VIII), 78; Buckingham, *Slave States of America*, I, 308; Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 330; Ashton, *History of Shorthorns in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XXI, No. 11), p. 34.

<sup>11</sup> *Kentucky Gazette* (Lexington), Aug. 2, 1790; June 18, 1791; July 14, 1792; Aug. 3, 1793; Aug. 15, 22, Sept. 19, 1795; Aug. 27, 1796; Aug. 23, 1797; Aug. 29, 1798; Aug. 25, 1800. Particular single issues contained as high as thirty such notices.

<sup>12</sup> *Ibid.*, Aug. 18, 1792.

<sup>13</sup> Claiborne, W. C. C., *Official Letter Books*, III, 371; Stoddard, *Sketches of Louisiana*, 181; De Coin, *Cotton and Tobacco*, 119; *Niles' Register*, XIII, 38; Buckingham, *Slave States of America*, I, 308.

<sup>14</sup> *Western Journal and Civilian*, VI, 181; *Hunt's Merchants' Magazine*, XLI, 254.

"So numerous were the herds of cattle in Alachua before the war [probably the Seminole War] that from 7,000 to 10,000 could be seen grazing at once on Payne's prairie; and there was a single grazer on the Wacasassa whose stock had increased in the course of a few years to the number of 3,000 without any other expense than that of *herding* them."

There were large herds of cattle also in the marshes, coastal prairies, and pine forests of southern Alabama and Mississippi.<sup>15</sup> In 1850 the annual production of cattle in that region was estimated at 1,000,000, generally sold at three or four years of age. In the past few years, however, the range had been impaired by overstocking. Considerable herding was practiced in wet lands and pine lands of the South Atlantic coastal plain, especially in the coastal flatwoods region of southeastern Georgia. As in the colonial period, a herding economy prevailed in certain islands along the coast of Virginia and North Carolina. About 1836 the large herds of horses had been decreasing for several decades, but the islands were being employed also for raising work oxen.<sup>16</sup>

The cattle industry in Texas, the largest herding territory in the South, was of Mexican origin. The earliest American settlers quickly took advantage of the exceedingly favorable conditions, and in their hands the industry made rapid progress. Before the outbreak of the Civil War the advance of agriculture was driving the herding industry into the semiarid districts of western Texas. The California market developed in 1850; and the establishment of the Morgan line of steamers provided an outlet also to the New Orleans market. The first drives to Missouri were made in 1846.<sup>17</sup> In the earlier years of the Republic of Texas numerous unbranded cattle ranged the prairies and were to be had for the taking; consequently it was easy to accumulate a large herd.<sup>18</sup> The herding of sheep for wool production was also beginning to develop on an extensive scale before the Civil War, assuming somewhat the character of a mania. It was soon found profitable to import native Mexican sheep and cross them with merino rams, and it is said that 250,000 Mexican sheep were brought into Texas in 1859.<sup>19</sup>

The Appalachian Mountains, particularly the limestone areas, comprised another important cattle herding region. Because of the rough topography, difficulties of tending stock in timbered areas, the sporadic presence of small farmers, and the almost complete private appropriation of the land, herding was not on as extensive a scale as in Texas.<sup>20</sup>

<sup>15</sup> Claiborne, J. F. H., *A Trip through the Piney Woods* (Miss. Hist. Soc., Publications, IX), 514.

<sup>16</sup> United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 260; *De Bow's Review*, XIX, 611; White, G., *Statistics of Georgia*, 243, 595, 605; *Farmers' Register*, III, 417, 419.

<sup>17</sup> United States, Patent Office, *Annual Reports, Agriculture*, 1850, p. 189; 1853, p. 11; *Cultivator*, new series, IX, 79; *Southern Cultivator*, XV, 116; Gordon's report on cattle, sheep, and swine, in *United States Census*, 1880, III, *Agriculture*, 11; *Valley Farmer* (St. Louis), X, 274; Olmsted, F. L., *Journey through Texas*, 63.

<sup>18</sup> United States, Patent Office, *Annual Reports, Agriculture*, 1850, p. 216; 1851, p. 340; 1854, p. 20; 1855, p. 26; Darby, *Emigrant's Guide*, 76.

<sup>19</sup> United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 244; 1851, pp. 340, 346; 1853, p. 46; 1854, p. 55; *De Bow's Review*, XII, 584; *Southern Cultivator*, VII, 60, 97; *Cultivator*, new series, IX, 79; United States Agricultural Society, *Journal*, VII, 387; *Valley Farmer* (St. Louis), X, 215; XI, 309; *Country Gentleman*, XIII, 236, 284, 332; XV, 156.

<sup>20</sup> See below, p. 884.



There was a good deal of agitation from time to time for the development of sheep herding in Appalachia. About 1842 Adam Beatty was urging the utilization of the sparsely settled Kentucky mountains for sheep. There were also advocates of the industry for the mountain districts of Tennessee, South Carolina, Georgia, and Virginia, and a few experiments on a large scale. About 1847, for instance, a company was formed in New York to establish a ranch for 120,000 sheep on 100,000 acres in West Virginia. Even at that early date the advantages of Brooke County and adjacent territory, which later became an important wool producing region, were recognized.<sup>21</sup> About 1860 one Henry More was said to have a sheep range of 25,000 acres in Webster County, West Virginia, for which he was importing a pair of shepherd dogs from Switzerland.<sup>22</sup> Apparently, however, difficulties due to wild animals, the hardships of herding in the woods, and the better adaptability of the area to cattle prevented the extensive development of sheep herding in Appalachia.

There were certain regions where animal husbandry was carried on as an incident of farming or planting, but largely by permitting stock to range in the woods and swamps with little supplemental feed, particularly the coastal plain areas of Maryland, Virginia, and the Carolinas, not naturally well adapted to the better pasture grasses. These areas, however, were compelled to depend on importation from Kentucky, West Virginia, and Tennessee for a part of their supply of stock.<sup>23</sup> John Taylor's program of enclosing greatly restricted the range, confining stock mainly to woodlands and marshy areas. The usefulness of woodland range for hogs had been greatly impaired by the removal of mast-bearing trees. In 1818 it was reported that there were less pasture and less stock east of the Blue Ridge in Virginia than there had been thirty years earlier.<sup>24</sup> The adoption of methods of improving land by clover fallow did not greatly enlarge the possibilities of livestock husbandry, for it was customary to plow under the clover either in the first or second year. The pulling of fodder and the use of wheat straw continued to be the principal reliance for forage as they had been in the colonial period.<sup>25</sup> Since livestock were maintained primarily for manure and only incidentally for meat and milk for home use, and with practically no effort to raise a surplus for market, there was but little attempt to improve their quality other than by a few enterprising planters. Except for riding and carriage horses, stock were given the most wretched care. In the last two or three decades, however, there were distinct signs of improvement.<sup>26</sup>

The coastal plain areas of Georgia and the Carolinas were handicapped by

<sup>21</sup> *Dollar Farmer*, II, 77-79; *Southern Agriculturist*, new series, V, 302; *Farmer and Planter*, V, 328; *Tennessee Farmer*, I, 90; White, G., *Statistics of Georgia*, 243, 595, 605; Buckingham, *Slave States of America*, II, 298; *North Carolina Farmer*, III, 209.

<sup>22</sup> United States Agricultural Society, *Journal*, VIII, 274. For a detailed account of the favorable conditions for sheep herding in Amherst County, Virginia, see *Southern Planter*, VI, 67.

<sup>23</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 10-12; *Farmers' Register*, X, 388; *American Farmer*, 1 series, IX (1827-8), pp. 49, 347; United States, Patent Office, *Annual Report*, 1848, p. 474.

<sup>24</sup> Nicholas, *Rotation of Crops* (Society of Virginia for Promoting Agriculture, *Memoirs*), 108. See also *Farmers' Register*, IV, 700; X, 257.

<sup>25</sup> *Ibid.*, I, 524; II, 658; III, 233, 238; VII, 383, 529; X, 120, 265, 339; Mitchell, *Agricultural Speculations* (N. C., Bd. of Agric., *Papers*, I), 53-55.

<sup>26</sup> *Farmers' Register*, VII, 611; *Southern Planter*, XIX, 63.

an even greater scarcity of hay and pasture grasses, and by the fact that the energies of the planters were absorbed largely with the staple crops. As already noted, a large proportion of the planters did not keep even work stock, although this custom was changing in the later years of the period. The towns of the region were but inadequately supplied with milk and butter. Fish were largely relied on as food for slaves, supplemented by large importations of pork from the West. Rice straw, chaff, and corn blades furnished a roughage employed mainly for work oxen and a few milk cows, supplemented by cowpeas and sweet potatoes. Some grazing was afforded in marshes for cattle and hogs, and the pine woods were periodically burned to improve the carpet grass and other forage. The resources of the region were supplemented by imported hay. Some enthusiasts urged the advantages of the salt marshes as a range for sheep,<sup>27</sup> apparently without regard to their liability to disease on wet lands.

Most of the lands of the upland Cotton Belt were better adapted than the coastal plain to the growing of grasses, cereals, and forage crops. In their early stages of occupancy herders and pioneer farmers found an abundant range. Later, more mature methods of animal husbandry, involving the use of supplemental feeds and the provision of shelter, began to be developed by the farmers who settled central North Carolina, upper South Carolina, middle Georgia, and Alabama. In those areas favorably situated for production and sale of cotton, as well as in the tobacco region of western Kentucky and probably Tennessee, stock raising gradually declined until it was largely subordinate to other plantation operations. The animal husbandry of the typical cotton and tobacco plantation districts was limited to the raising of hogs for the bacon consumed by the slaves, a few cattle to supply milk and beef for the planter's family, and occasionally a few sheep for mutton and for wool to manufacture into clothing for slaves.<sup>28</sup> Even the grain growing areas of western South Carolina found it more profitable to sell their surplus to adjacent plantation areas than to feed it to stock in competition with Kentucky and Tennessee livestock.<sup>29</sup> The practice of letting cattle shift for themselves in available woods, marshes, and old fields, supplemented by corn blades, straw, and a little corn, was very prevalent in the Cotton Belt. Peas, corn, and in sandy areas, peanuts, and occasionally root crops, were the main dependence for fattening hogs.<sup>30</sup>

In general, animal husbandry in the cotton plantation areas varied in extent according to the condition of the staple industry, increasing in periods of depression and falling off when large profits were derived from the staple crop. The great majority of planters in the sugar region of Louisiana, the cotton region of

<sup>27</sup> *Southern Agriculturist*, VIII, 539-541; IX, 232; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), p. 83; *Farmers' Register*, VIII, 358, 361, 521; Winyah and All Saints Agricultural Society, *Reports submitted April 20, 1848*, p. 17.

<sup>28</sup> *Southern Agriculturist*, XI, 131-133, 242; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 161; 1850, p. 233; *Southern Cultivator*, III, 149; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 536, 544.

<sup>29</sup> *Southern Agriculturist*, new series, II, 25.

<sup>30</sup> *American Farmer*, 1 series, XV (1833-4), p. 365; *Southern Cultivator*, I, 199; IV, 143; VI, 3; *Cultivator*, V, 209; United States, Patent Office, *Annual Reports*, 1847, p. 376; 1848, p. 476; *Agriculture*, 1849, p. 143; 1850, pp. 189, 195, 214, 220, 287; 1851, p. 331; 1855, p. 63; *Pendleton Farmers' Society*, 190-193; *Carolina Planter* (1840), p. 149.

the Mississippi River Bottoms, and the Black Prairie of Alabama usually bought all or a part of the meat consumed. Some areas in upper South Carolina and middle Georgia imported their horses and mules but raised their pork and beef. The growing need for manure was placing an additional emphasis on the keeping of livestock in that region. Many planters shaved the margin so closely in their efforts to produce a maximum cotton crop that low corn yields forced them to buy meat or to stint their Negroes.<sup>31</sup>

In western Maryland, northern and Piedmont Virginia, the Valley of Virginia, and the valleys of eastern Tennessee and parts of western North Carolina, the methods of animal husbandry were generally superior to those employed in the planting regions.<sup>32</sup> All of these areas, it is true, passed through the pioneer stage of indiscriminate herding in the woods.<sup>33</sup> But in later decades these crude methods were largely displaced by greater care and more ample provision. Substantial barns were built and more attention devoted to improving breeds and pastures, and putting up hay for winter use.<sup>34</sup>

The highest type of animal husbandry in the South prevailed in the Nashville Basin and the bluegrass areas of Kentucky, especially in the phosphatic limestone soils of the Inner Blue Grass. Lexington, Kentucky, became the most important market in the South or West for blooded stock. At times Kentucky breeders found it difficult to keep up with the continually expanding demand. Consequently prices ruled high, and large incomes and handsome fortunes were realized.<sup>35</sup> The luxuriant bluegrass pastures were supplemented by the cultivation of timothy and red clover, and of rye for winter and early spring pasture. Cattle were fattened for market on corn. It was a common practice to turn cattle and afterwards hogs into the rye, oats, and corn as a method of harvesting the grain.<sup>36</sup> Swine and a few sheep were kept mainly as a means of cleaning up the waste of cattle feeding. Mules were raised largely from working mares, and the mule colts sold to farmers who specialized in fattening them. Kentuckians purchased hogs from Ohio and Indiana to be fattened on their clover, rye, and corn fields; and there was a class of farmers who specialized in the fattening of hogs. The system of farming was gradually developed with a view to economy of labor. In 1840 farms containing 1,000 to 1,500 acres in pasture and cultivation, maintaining 200 to 300 head of cattle and as many hogs, required only about 10 good hands.<sup>37</sup> The nearest rival region to the Kentucky Blue Grass in

<sup>31</sup> *Southern Cultivator*, II, 46; *Southern Agriculturist*, III, 534; *American Farmer*, 1 series, IX (1827-8), p. 347; *Cultivator*, I, 83; United States, Patent Office, *Annual Report*, 1848, p. 505; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), App., pp. 6-8; *Carolina Planter* (1840), p. 17.

<sup>32</sup> *American Farmer*, 1 series (1827-34), IX, 49; XV, 32; *De Bow's Review*, XVIII, 59.

<sup>33</sup> Concerning this stage in the Valley of Virginia, see La Rochefoucauld, *Travels*, III, 149.

<sup>34</sup> Gerry, *Diary*, 135, 137, 146; *Farmers' Register*, I, 631; II, 14-16, 124; V, 606; VI, 458; X, 458-460; Smith, J. G., *East Tennessee*, 8; Beatty, *Essays on Practical Agriculture*, 67; *American Agriculturist*, III, 118; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 248; *De Bow's Review*, XVIII, 59; *Southern Planter*, XV, 56.

<sup>35</sup> Marryat, *Diary in America*, II, 191-198; *Farmers' Register*, VII, 25; IX, 56; *Farmer and Gardener*, IV, 170; United States Agricultural Society, *Journal*, VII, 187; *Franklin Farmer*, III, 70-74.

<sup>36</sup> *Farmers' Register*, VIII, 40-42, 314-318; IX, 57; Smith, J. G., *East Tennessee*, 5-8; Beatty, *Essays on Practical Agriculture*, 67; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, 286; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 545, 550-553.

<sup>37</sup> *Farmers' Register*, VIII, 42; Swem, *Letters on the Condition of Kentucky in 1825*, p. 73.

the production of fine stock was the Nashville Basin, where phosphatic limestone lands permitted rich pastures of bluegrass, clover, and timothy, and abundant grain crops. Systematic stock breeding was tending to displace the production of cotton and tobacco for market in the last few decades of the period. The farmers rivalled those of Kentucky in importing and improving breeds. In 1841 an agricultural editor of Nashville declared, "It may be said without boasting, that we already have as fine blooded horses, cattle, hogs, and sheep, as are to be found in America, or even Europe."<sup>38</sup> In the later decades of the period the better farming areas of Missouri, along the Missouri and upper Mississippi, were rapidly replacing the early crude methods of livestock production by systematic types of husbandry. The rearing of mules for the Southern market had become an important industry before the Civil War, and St. Louis had become a large mule market.<sup>39</sup>

It is probable that most of the farms and the larger plantations produced enough milk to supply the requirements of the white population. Some of the planters and practically all of the farmers made their own butter. Nevertheless, in 1857 a South Carolina paper asserted, "Good butter is indeed a luxury to almost every planter in the whole Southern country, and there is, perhaps, no one article of food that is more eagerly sought after."<sup>40</sup> It was not customary in the plantation areas to feed dairy products to slaves. The lack of local markets, the scarcity of ice, the superior profitableness of other methods of employing labor, and the comparatively few city markets were not favorable to development of commercial dairying.<sup>41</sup> In the neighborhood of the cities and larger towns there were some commercial dairy farms. In 1858 the dairies producing whole milk for the city of Louisville, Kentucky, were described as "probably as well conducted as any in the country," but almost without exception managed by Swiss or German operatives.<sup>42</sup> About 1842 it was said that in eastern Virginia there were hundreds of farmers owning from 500 to 800 acres who did not obtain more than enough milk and butter for their families. When the cattle-killing months of March and April came, which was "the pinching time of year for man and beast," it was a lucky family that could get even half enough butter or milk.<sup>43</sup> Nevertheless, there were not lacking individuals in the plantation areas who attempted to adopt more efficient methods.<sup>44</sup>

From the Valley of Virginia some butter was shipped to eastern markets.<sup>45</sup> Nevertheless, a Richmond paper complained in 1843 of the scarcity of good butter, declaring that much of the butter brought to market "would hardly be thought good enough to grease a cart-wheel." In 1846 it was proposed to have

<sup>38</sup> *Agriculturist*, II, 42, 225-226, 246-247.

<sup>39</sup> *Valley Farmer* (St. Louis), VI, 245.

<sup>40</sup> *Farmer and Planter*, VIII, 36.

<sup>41</sup> *De Bow's Review*, XVIII, 59; *American Farmer*, 1 series, XV (1833-4), p. 316; United States, Patent Office, *Annual Reports, Agriculture*, 1850, p. 214; 1851, p. 331; 1854, p. 11; *Southern Cultivator*, V, 46; VI, 2, 27.

<sup>42</sup> *Valley Farmer* (St. Louis), X, 211.

<sup>43</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 12.

<sup>44</sup> For instance, see *Farmer and Planter*, IV, 15; *Farmer and Gardener*, V, 401.

<sup>45</sup> *De Bow's Review*, XVIII, 59; *American Farmer*, 1 series, XV (1833-4), p. 316; United States, Patent Office, *Annual Reports, Agriculture*, 1850, p. 214; 1851, p. 331; 1854, p. 11.

the Virginia legislature pass a bill for the inspection of butter, whereupon one of the members remarked that if the farmers "would keep the butter pot with the mouth downwards, so that the putrid fluid might drain from the butter, there would be no need of such an office.<sup>46</sup> The bluegrass regions of Kentucky, Tennessee, and Missouri were not large producers of butter for market, and attempts to stimulate greater attention to commercial production were futile.<sup>47</sup>

While cheese was made by many farmers in the colonial period, the development of commercial planting and farming generally led to abandonment of the industry and to increasing dependence on Northern sources of supply. Before the Civil War even the bluegrass areas of Kentucky and Missouri imported a large proportion of the cheese consumed. About 1847, however, numerous farmers of Fauquier County, in northern Virginia, were taking up cheese production for market.<sup>48</sup>

In short, while the South abounded in cattle, the reported production of dairy products was very small. A table based on census statistics shows that some of the Southern States, such as Texas and Florida, had far more cattle per capita than important dairy States like Vermont and New York, and in most of the Southern States cattle per capita were nearly or quite as numerous as in the Northern States. Yet the production of butter and cheese per capita in most of the Southern States was insignificant as compared with per capita production in the principal Northeastern States.<sup>49</sup> Some of the border States produced from a half to two thirds as much butter per capita as the Northern States, but their relative production of cheese per capita was inconsiderable.

#### MARKETS AND MARKETING

After the colonial period the South ceased to rely largely on West Indian markets for the sale of livestock and livestock products. About the beginning of the nineteenth century Bordley observed:<sup>50</sup>

"Whilst the husbandmen of *Ireland* reckon on *meat* produced and exported, the husbandman of *America* is alert in cultivating and selling in the market, for exportation, all the *grain* that can be produced from his labours and his attentions; but not a thought has he of raising *meat* for the foreign market: he sees that *meat* is produced and applied to domestic uses, and for supporting our seamen on their voyages;—any further he is inattentive to it."

These changes were probably due to the market restrictions and commercial difficulties which developed after the separation from England, the absorption of the South in cotton production, and the increase of domestic demand for livestock. As the surplus-producing livestock areas were pushed farther to the westward there was a greater relative advantage in selling in the rapidly growing North Atlantic cities, the continually expanding plantation regions, and the

<sup>46</sup> *Southern Planter*, III, 177; VI, 66.

<sup>47</sup> *Valley Farmer* (St. Louis), X, 211; XII, 213.

<sup>48</sup> *Franklin Farmer*, II, 5; *Western Journal and Civilian*, I, 212; *Southern Planter*, VII, 193.

<sup>49</sup> See tables compiled on basis of data in *United States Census*, 1850, in United States Agricultural Society, *Journal*, I, Nos. 3–4, pp. 140–143.

<sup>50</sup> *Essays and Notes on Husbandry*, 370.

newly developing farming areas of the Northwest with their initial requirement for stock cattle and horses, rather than in maritime export markets.

Large numbers of cattle from the Appalachian Mountains were driven into farming districts, such as the Valley of Virginia, the valleys of east Tennessee, and the piedmont sections of Maryland, Virginia, and the Carolinas, where they were sold to grain raising farmers who fattened them for market.<sup>51</sup> The country about Newbern, North Carolina, was also a region for fattening cattle from the western and southern parts of that State.<sup>52</sup> The mountain cattle were customarily purchased when three or four years of age, "roughed" through the first winter on cornstalks and wheat straw, fattened in the summer and fall on clover pasture and grain, and then driven to the markets of Baltimore and Philadelphia. About 1850 some 2,000 head were driven from the mountains into Albemarle County alone. This constituted an economical way to market the corn of the piedmont areas.<sup>53</sup>

A great many Kentucky, Tennessee, and other Western cattle, hogs, horses, and mules were driven directly to the consuming markets. They were concentrated at Lexington and Paris in Kentucky, and Nashville and Knoxville in Tennessee, the latter being the important center for shipments to the southeastern planting regions and to western Georgia and Alabama. Large herds or droves moved along the Big Sandy, upper Ohio, James, and Potomac valleys to the markets of the North Atlantic States or of eastern Virginia, and in such numbers that before the Civil War some of the valleys on the lines of travel were suffering from soil exhaustion due to too exclusive production of grain for sale to drovers.<sup>54</sup> Eastern Virginia bought western hogs, cattle, and mules in large numbers. About 1840 Petersburg was the center of a consuming region estimated to require 15,000 hogs a year. In the years 1840 to 1843 inclusive the average annual numbers passing over Point Mountain, North Carolina, destined for South Carolina and eastern Georgia, were 4,804 horses and mules, 55,575 hogs, 3,236 cattle, and 3,090 sheep.<sup>55</sup> In 1829 the number of stock passing the Cumberland Ford toll house were 4,214 horses, 2,005 mules, 51,041 hogs, 1,015 stall-fed cattle, and 303 sheep.<sup>56</sup> In 1836 the movement of hogs alone from Kentucky was reported as 82,000 through Cumberland Gap, 60,000 on the Kanawha route, and 40,000 through Tennessee to Alabama and Georgia. About 1848 the hogs annually driven through Buford's Gap numbered 60,000.<sup>57</sup> It was estimated that the lower Mississippi markets took the equivalent of half the above total in the form of pickled pork,<sup>58</sup> mainly shipped down the Mississippi. In the last

<sup>51</sup> Smith, J. G., *East Tennessee*, 8; United States, Patent Office, *Annual Reports, Agriculture*, 1854, p. 20; 1855, p. 26; Olmsted, F. L., *Journey in the Back Country*, 223-225, 274; Buckingham, *Slave States of America*, II, 298; *Southern Planter*, VIII, 283; XIV, 260; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 47.

<sup>52</sup> Buckingham, *Slave States of America*, II, 298.

<sup>53</sup> *American Farmer*, 1 series (1820-2), II, 402; III, 105, 227; *Southern Planter*, X, 161.

<sup>54</sup> Verhoeff, *Kentucky Mountains: Transportation and Commerce*, 98-101; *Southern Planter*, XIV, 177; *Farmers' Register*, X, 116; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 71-73.

<sup>55</sup> *Farmers' Register*, VII, 648; *Carolina Planter* (1844-5), I, 69. See above, p. 457.

<sup>56</sup> *Niles' Register*, XXXVIII, 108. For 1824, see *ibid.*, XXVIII, 272.

<sup>57</sup> Lynchburg and Tennessee Railroad Company, *First Annual Report*, 33.

<sup>58</sup> *Tennessee Farmer*, I, 110.

two decades of the period the driving of hogs and cattle began to be undermined considerably by the development of pork and beef packing establishments at such points as Louisville, Cincinnati, Nashville, and Gallatin, Tennessee, and by the development of railways and the shipment of larger quantities of packing-house products by river to the lower South. In addition to producing large quantities of barrelled pork and bacon, Kentucky became a center for the production of lard oil, which came to be widely used instead of sperm oil. The pork packing industry of Louisville increased from about 70,000 hogs slaughtered in 1845 to over 253,803 in 1857.<sup>59</sup> The shipment of barrelled pork and beef to New Orleans markets early became an important activity in the Missouri River region, and in 1841 the State legislature passed an inspection act. Along the principal rivers were extensive packing houses to which hogs were driven long distances. The Western trade also provided a considerable demand.<sup>60</sup>

The driving of hogs and cattle came to be a specialized employment, with more or less standardized practices. The usual drove of cattle was described as 120 head, attended by a manager on horseback and two footmen. One of the latter went ahead leading a steer. There were stations along the entire route where the drovers found taverns and where farmers supplied feed and grass lots. The road expenses for a drove of 100 cattle from Kentucky were about \$1,500. The expense was somewhat less when the stock were fed on grass alone, but the loss in weight was as much as 15 per cent and quality was also considerably impaired. The ability of swine to stand the rigors of the long journeys was given much consideration in the discussions of the relative advantages of the respective breeds. Hogs were driven about 8 miles daily. It was estimated that about 24 bushels of corn daily, purchased along the route, was required to feed a thousand head. There were instances of droves of 5,000 head. Some of the feeding stations boasted of handling upwards of 150,000 head in a year.<sup>61</sup>

In some of the receiving markets at the end of their long journey drovers sometimes found themselves at serious disadvantage. In 1857 a drover writing in a Richmond, Virginia, paper declared that the livestock trade of that market was being reduced, to the advantage of Baltimore, because of the excesses of the dealers. A few prominent graziers were well paid, but "the mass of the smaller dealers, if they happen to meet a tight market, are literally skinned." One hundred or two hundred cattle would glut the market, and the drover must either lie over a week or two and feed his cattle or sell at a loss. His assertion, however, was strongly denied by another writer, probably voicing the attitude of the buyers.<sup>62</sup> About 1828 similar complaints were made concerning the Charleston,

<sup>59</sup> Clark, T. D., "Livestock Trade between Kentucky and the South," in Ky. State Hist. Soc., *Register*, XXVII, 576-578; *Dollar Farmer*, I, 76; II, 89; *Agriculturist*, III, 21; Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 552, 555; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 17.

<sup>60</sup> Ashton, *History of Hogs and Pork Production in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XX, No. 1), pp. 48, 52-56.

<sup>61</sup> *Franklin Farmer*, III, 12; Arthur, *Western North Carolina*, 285-287; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 73-75; *Southern Planter*, VI, 227.

<sup>62</sup> *Ibid.*, XVII, 230, 310.

South Carolina, markets. The writer urged as a remedy the establishment of a public cattle market and slaughterhouse.<sup>63</sup> About 1850 Thomas Affleck complained that hides worth many thousands of dollars were annually wasted for lack of market outlets.<sup>64</sup> In 1837 it was said that there was no regular buyer of wool in Charleston, South Carolina.<sup>65</sup> In 1847 a convention of wool growers complained:<sup>66</sup>

"[When farmers] get a little wool in the beginning of the season, it is common to wrap it in a blanket and carry it to the nearest little country town, where they are at the mercy of one or two speculators, who generally combine, and get for twenty-five cents what should sell for fifty. . . . Thus a low price is established at the beginning of the season, which affects the market through the residue of the year."

One of the most common methods of the dealers was "to get several leading proprietors to sell their wool at a certain inadequate price by giving them twenty times its worth for some other thing," thus influencing other sellers. The inadequacy of the distributive system also worked at times to the disadvantage of the consumers. In 1837 the city of Danville, Virginia, was complaining of an incomplete supply of hogs due to the failure of Western drovers to bring a sufficient number. The following year prices of beef in Baltimore were high as a result of a small supply, said to be partly due to drouth in Kentucky in the preceding summer and partly to a combination of Western drovers.<sup>67</sup>

#### FEEDING AND GENERAL CARE

In many parts of the South the production of hay and the cultivation of pasture grasses occupied but a small place in agricultural economy, partly because of the large area available for pasturage of a sort, such as swamps, savannahs, bottom lands subject to overflow, and pine flats. The practice of keeping a reserve of land in the plantation for use after the cultivated land was exhausted provided considerable areas for stock; and deserted fields soon became covered with herbage.<sup>68</sup> The practice of annually burning over the range, introduced in the colonial period, had been carried as far west as Missouri, and was being employed by the early American pioneers of that State.<sup>69</sup> The following description of prevailing methods in eastern Virginia probably fits fairly closely much of the other plantation territory:<sup>70</sup>

"Until a very few years past, scarcely anyone thought of feeding cows upon any other, than what one of our worthy members called 'the *bran* and *shuck* system'. Indeed, there were not many who cared to provide bran; but it was generally thought that the offal of the small grain crops was all-sufficient for cattle. . . .

"Their summer pasture is not always good. Indeed, the attention paid them during

<sup>63</sup> *Southern Agriculturist*, I, 360; II, 524.

<sup>64</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 37.

<sup>65</sup> *Southern Agriculturist*, X, 118.

<sup>66</sup> *Southern Planter*, VII, 90.

<sup>67</sup> *Farmer and Gardener*, IV, 281; *Franklin Farmer*, II, 357.

<sup>68</sup> *American Farmer*, 3 series, I (1839-40), p. 115; United States, Patent Office, *Annual Report*, 1847, p. 390.

<sup>69</sup> Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 661.

<sup>70</sup> *Farmers' Register*, IX, 66.



seven or eight months of the year, is only to keep them out of mischief. Except this, and they are left pretty much to scuffle for themselves. Their winter keep consists of corn-tops, shucks and wheat straw. . . . In addition to this, some provide for their milch cows, very closely bolted bran, which, with a few cabbage leaves and turnips, if they happen to be on hand, will furnish a quantum sufficient of blue milk to get along with during winter."

An important source of discouragement to the development of artificial pastures was the continuance of the colonial fence laws requiring the fencing of fields against depredations of stock. In many neighborhoods public opinion was such that the plaintiff against depredations had little chance before a jury. In 1834 a planter wrote, "The right of common created by the General Assembly, and so long enjoyed by the good people of this state, puts it out of the power of any farmer in this county to enclose a standing pasture."<sup>71</sup>

During the thirties in Virginia and about a decade later in South Carolina an active campaign was waged by progressive planters against the old fence laws. The advocates of modification pointed out that conditions had radically changed since their original enactment, for livestock were no longer numerous, and crop farming was the predominant interest. Timber for fencing had become exceedingly scarce except for old-field pine, which was not durable, and many tracts of land were left uncultivated because of the burden of fencing it. The planter who desired improvement of stock or better pastures was put to the double expense of fencing in his own stock and fencing his crops against his neighbors. Fencing costs alone required from one third to one half the income from landed property.<sup>72</sup> There were persons who deliberately took advantage of the law to maintain large herds on the lands of others, and the half-starved animals were likely to break through almost any enclosure in pursuit of food.<sup>73</sup> In 1835 a petition was presented to the Virginia legislature for a change in the law. The legislature was confronted by the fact that in many parts of the State the original conditions that had justified the enactment of the fence laws still continued. Although the large planters were the proponents of modifying the legal requirements, the more numerous small farmers benefited by the old arrangement. The legislative committee rejected the proposal for modification.<sup>74</sup> Through the efforts of Ruffin, however, some legislative relief was granted in two ways. A law was passed making the tidewaters of the James, Appomattox, and other streams lawful fences; and certain planters in Prince George and other Virginia counties formed voluntary associations, sometimes incorporated, to make their own fencing arrangements. This tendency toward local option in fencing was making some headway in parts of the South before the Civil War.<sup>75</sup>

In the lower South farmers were discouraged from cultivating artificial grasses

<sup>71</sup> *Ibid.*, I, 397, 451, 490; II, 345-347, 399, 455; *Georgia Laws* (Prince, 1837), p. 256; *Maryland Session Laws*, 1822, ch. 82; 1825, ch. 146; 1826, ch. 82; 1827, ch. 150; 1833, chs. 119, 140; 1834, chs. 47, 70; *North Carolina Session Laws*, 1831, p. 5; *South Carolina Statutes* (McCord), VI, 331; *Tennessee Statutes* (Caruthers & Nicholson), 332.

<sup>72</sup> *Farmers' Register*, I, 185, 634; II, 572; III, 455-459; X, 513-515; *Southern Planter*, II, 185; VII, 134, 345-347; VIII, 110, 155; X, 216, 218; South Carolina, Geological and Agricultural Survey, *Report* (Lieber, 1856), pp. 124, 127-129; *Southern Agriculturist*, new series, V, 257.

<sup>73</sup> *Farmer and Planter*, VI, 197.

<sup>74</sup> *Farmers' Register*, II, 402, 712; III, 50; *Southern Planter*, VII, 95.

<sup>75</sup> *Farmers' Register*, VIII, 504; *Southern Planter*, XVIII, 168, 175; *Southern Agriculturist*, new series, V, 25-27; *De Bow's Review*, XXIII, 16.

by the fact that the hot midsummer sun and long drouths caused the grass to dry up. Many of the soils were not well adapted to the common pasture and meadow grasses. The great demand for labor in the production of staple crops also discouraged the making of extensive artificial pastures and meadows. A relative disadvantage of hay, as compared with the staple crops, was intensified by the fact that the labor-saving devices for putting up hay, particularly the mower, did not come into general use in the ante bellum period.<sup>76</sup> Some planters even deprecated the raising of grasses, believing corn blades a superior and more economical type of forage; but in 1833 an agricultural writer sadly remarked, "If our dwarfish 'skin and bone' cattle and horses, had a vote on that question, it would be decided otherwise."<sup>77</sup> In the coastal plain various marsh grasses were used for pasturage and sometimes cut for forage.<sup>78</sup> Crab grass, Johnson grass, and Bermuda grass were common. Sometimes sweet potato vines were cured for hay, as well as cowpeas and pea vines. Sugar-cane tops were employed for fodder in regions where cane was grown.<sup>79</sup>

In the farming areas where stock were raised in large numbers for market, there was progress in the production of hay and the raising of artificial grasses for pasturage.<sup>80</sup> There was a great deal of discussion in the agricultural press as to the advisability of a more general use of root crops, as in Europe, especially for hogs and sheep, and some planters experimented with turnips, rutabagas, beets and mangel wurtzels.<sup>81</sup> There was a tendency in some quarters toward the better preparation of feed, such as the chopping of straw, corn blades, and other fodder, the grinding of grain, and for hogs the boiling of pumpkins, sweet potatoes, and other root crops. Many, however, considered that these practices consumed more time than they were worth.<sup>82</sup> The practice of cutting and chopping up corn fodder was tried by some farmers; but efficient shredding machines were not available, and the practice was found extremely laborious.<sup>83</sup> Soiling was not very common in the South although occasionally advocated by persons influenced by European practices. The practice of folding stock for the sake of the manure and hauling to the folds fodder and concentrates persisted in the older districts.<sup>84</sup>

In the feeding of hogs there was a general tendency in the plantation areas to

<sup>76</sup> *Farmer and Planter*, III, 184; *American Agriculturist*, I, 214; IV, 155; *American Farmer*, 1 series, XV (1833-4), p. 85; *Southern Cultivator*, XVI, 4; United States, Patent Office, *Annual Report*, 1850, *Agriculture*, p. 232; *Southern Agriculturist*, I, 250, 549; VII, 517; *Farmer and Gardener*, I, 115. See above, p. 798.

<sup>77</sup> *Southern Agriculturist*, VI, 229. Concerning the pasture and meadow grasses used in the South, see above, p. 822.

<sup>78</sup> *Southern Agriculturist*, IX, 232; *Farmers' Register*, X, 336.

<sup>79</sup> *Southern Agriculturist*, I, 403, 496; VI, 351.

<sup>80</sup> *American Farmer*, 1 series, I (1819-20), p. 137; *American Agriculturist*, III, 236; *Southern Agriculturist*, IV, 314; *Southern Cultivator*, I, 106; III, 91; VI, 20, 150; VII, 151; XV, 12, 32; XVI, 141; United States, Patent Office, *Annual Reports, Agriculture*, 1849, pp. 143, 148; 1850, pp. 195, 220, 232, 264, 286, 369; 1851, p. 354; 1852, pp. 71, 75.

<sup>81</sup> *Franklin Farmer*, III, 122; Taylor, J., *Arator*, 213, 220; *North Carolina Farmer*, II, 91; *Farmers' Register*, II, 493. For the argument for corn as against roots, see Jefferson, *Papers*, Vol. 98, Nos. 16819-16821 (Manuscripts, Library of Congress).

<sup>82</sup> *Southern Planter*, II, 33; *Franklin Farmer*, II, 155; *The Arator*, I, 339; *Farmers' Register*, V, 606; VII, 529; Washington, *Diaries* (Fitzpatrick), III, 3.

<sup>83</sup> Letter of Colonel John Taylor, Jan. 30, 1809, reprinted in Philadelphia Agricultural Society, *Memoirs*, II, 53.

<sup>84</sup> *Southern Agriculturist*, VI, 350; *The Arator*, I, 339; *North Carolina Chronicle or Fayetteville Gazette*, Sept. 27, 1790.

let them run at large and pick up such mast and roots as they could find, with an occasional feeding of corn to keep them tame. Then they were penned and fattened on corn, with little or no supplementary forage crops. It was estimated that through exposure, theft, and other causes, from a half to two thirds of the total number were lost in the woods. The extravagant use of corn in fattening was also wasteful.<sup>85</sup> In the farming areas better methods were more generally used. In Kentucky bluegrass areas, for instance, a prevailing practice was to employ hogs during the winter to clean up after cattle in the feed lots at the rate of three hogs to each head of cattle. In the spring the hogs were turned on clover pasture and later permitted to glean the rye. When corn was ripe, they were driven into the corn fields or fed in a pen nearby.<sup>86</sup> There was a tendency to butcher hogs or sell for butchering at a later age and greater weight than is now considered desirable. A pork packer of the Kentucky-Ohio region, who had been in the business since 1820, declared his dislike of the exceedingly large hogs, several years old and weighing 400 to 600 pounds, which he was compelled to buy. Individual lots sometimes averaged 700 pounds, and individual animals were shown at fairs weighing up to 1,100.<sup>87</sup>

Sheep were no exception to the general custom of allowing stock to shift for themselves. Even so good a farmer as John Beale Bordley, on his farm at Wye, Maryland, followed this practice. He gave them nothing even in winter except "a few corn blades, if snows happened to be so deep as to deprive them of their common pasture food, and some green food from tailings of small grain sown; and also a few—too few roots." The merino mania led to greater interest in improved methods of care and feeding.<sup>88</sup>

Veterinary knowledge was exceedingly slight, reflecting the now outworn practices and theories of the sister science of medicine. Thus, in 1835 it was advocated that calves be bled in the neck every third day in clear weather in order to make the veal white and also whenever they exhibited lack of appetite. It was considered important that this be done as near the middle of the day as possible.<sup>89</sup>

As early as 1850 insurance companies were advertising their willingness to insure livestock.<sup>90</sup> However, this protection was probably rarely resorted to except for unusually valuable horses or breeding stock.

#### DEVELOPMENT OF INTEREST IN IMPROVED BREEDS

The crude methods of caring for stock in plantation areas and regions that continued in the pioneer stages of husbandry resulted in continuance of the colonial degeneration in native breeds, already mentioned, which was frequently the subject of comment by travellers. Allowance should probably be made for the small average weight of cattle originally brought from the mother country.

<sup>85</sup> Jefferson, *Farm Book*, 75 (Photostat copy, Library of Congress); *Farmers' Register*, I, 433, 596; IV, 730; VII, 529; *Southern Planter*, IV, 94.

<sup>86</sup> *Farmers' Register*, IX, 562.

<sup>87</sup> *Ibid.*, 16, 657; *Southern Agriculturist*, new series, II, 528; *Southern Planter*, I, 195; *Agriculturist*, IV, 25.

<sup>88</sup> *Essays and Notes on Husbandry*, 177; cf. *Agricultural Museum*, I, 13, 18, 23; *Farmers' Register*, II, 493.

<sup>89</sup> *Southern Agriculturist*, VIII, 17.

<sup>90</sup> *Affleck's Southern Rural Almanac for 1851 and 1852*, p. 48.

The average dead weight of cattle at Smithfield market in 1710 was estimated by Gregory King at only 370 pounds, as compared with about 550 pounds in 1830. The representativeness of these estimates, however, has been questioned in a critical study of historical records of the dead weight of English cattle at various times, which indicates that the average size near the close of the eighteenth century was much nearer that of the present-day cattle of corresponding breeds and that the change since 1710 was much less than King's estimate suggests.<sup>91</sup> About 1850 Doctor Lee, editor of the *Southern Cultivator*, wrote from Augusta, Georgia: "Common cows nowhere give more than one or two quarts of milk at a milking. . . . Short commons have dwarfed them down to about one-third the size of northern cattle."<sup>92</sup> In 1856 it was stated that thirty years previously the average weight of "fine" beef cattle was not over 500 pounds per head, and probably did not exceed 400 pounds. Three-year-old hogs did not weigh as much as those in 1856 which were only eighteen or twenty months of age.<sup>93</sup> By 1840, however, many cows in the bluegrass areas of Kentucky had been brought to weigh 1,500 pounds. Improved cattle weighing 1,000 pounds and upwards were found in many counties. In 1854 the average weight of some 2,700 cattle received at the Richmond, Virginia, yards was estimated at 750 pounds.<sup>94</sup>

Many farmers still believed that the native cattle, hogs, and sheep were best adapted to the conditions of the country because of their hardihood and ability to shift for themselves under the little care and severe conditions of woodland ranges. Even John Beale Bordley declared, "The common cow-kind of Maryland are valuable; as they are hardy, feed cheaply, yield milk of good quality and in quantities if *housed* and *well kept* in *winter*, are docile, laborious, and give a fine grained good meat, with a due proportion of tallow." He admitted their small size, but believed this due to poor care rather than to deficiencies of breed.<sup>95</sup> In the post colonial period one continues to find occasional references to "black cattle" as though they were the characteristic native cattle.<sup>96</sup> In the French and Spanish settlements of southern and western Louisiana native stock were developed which were called by various names, as "piney woods," "swamp," "Opelousas," or "Attakapas" cattle. They were brick-colored stock with "immense wide spreading horns," and were said to be descendants of the original Spanish stock. They were probably the same stock as the long-horned Mexican cattle that made up the enormous herds of the Texas ranches. Some were unusually large; well adapted for draft purposes, but exceedingly poor milkers.<sup>97</sup>

<sup>91</sup> *Farmers' Register*, IX, 635; Fussell, "Size of English Cattle in the Eighteenth Century," in *Agricultural History*, III, 160-175.

<sup>92</sup> *Cultivator*, VI, 35. See also *ibid.*, I, 124; *Farmers' Register*, IV, 700; *Southern Cultivator*, III, 148.

<sup>93</sup> Kentucky State Agricultural Society, *Report*, 1856-1857, p. 189.

<sup>94</sup> *Farmers' Register*, IX, 57; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 189; *Southern Planter*, XIV, 177.

<sup>95</sup> *Essays and Notes on Husbandry*, 161; cf. *Franklin Farmer*, III, 380; *Farmers' Register*, IV, 572; United States, Patent Office, *Annual Report*, 1849, *Agriculture*, 161; *American Agriculturist*, IV, 253.

<sup>96</sup> For instances, see Williamson, *Letters of Sylvius* (Duke University, Historical Papers, XI), 18; *Farmers' Register*, V, 356; VIII, 521; *Sketch of Western Virginia for the Use of British Settlers*, 8.

<sup>97</sup> Letter of Thomas Affleck, in *Cultivator*, new series, I, 83; United States, Patent Office, *Annual Report*, 1849, *Agriculture*, 161, 297; *American Agriculturist*, II, 17; *Farmers' Register*, VIII, 357; Dale, "Ranchman's Last Frontier," in *Mississippi Valley Historical Review*, X, 37; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 16; Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 331; *Agriculturist*, III, 201.

To a considerable extent improvement in breeds came about through a series of manias, or crazes, for particular types or breeds. The first notable craze was for merino sheep, which developed just before the War of 1812. While Pennsylvania was the center of activity, the mania extended into Maryland, Virginia, Kentucky, Tennessee, and even the Carolinas. Newspapers and agricultural papers were filled with articles on the subject, merino societies were formed, and public sheep shearings accompanied by auction sales became social occasions of moment. Breeding stock was the object of excessive speculation, and prices advanced to absurd heights. The mania died out after the close of the war.<sup>98</sup> Another notable mania arose over Berkshire hogs, culminating about 1840. The most exaggerated claims were made for them, particularly their reputed ability to endure with impunity the long drives to market. It was alleged that not a few leading articles and even editorials were arranged as surreptitious advertisements in the interest of the sellers of breeding stock. Noted breeders resorted to atrocious methods of "puffing" and deception, inferior specimens were sold as breeding stock, and even animals with little or no Berkshire blood were purchased for Berkshires. The craze had collapsed by 1845, resulting in a violent reaction against the breed.<sup>99</sup> Between 1830 and 1840 interest in shorthorn cattle, which spread from Kentucky to Missouri and other Western States, also partook of the character of a craze.<sup>100</sup> The mania for trying unknown classes of livestock extended to camels, a number of which were imported into Texas and subsequently transferred to Alabama. For a time there was also a mania for Shanghai chickens.<sup>101</sup> One of the unfortunate effects of these outbursts of enthusiasm was the tendency to fall back again into habits of indiscriminate breeding. In 1841 the *Nashville Agriculturist* complained:<sup>102</sup>

"Fine cattle have been imported into Middle Tennessee at least twenty years, and yet in some neighborhoods where they once existed, there is scarcely a trace of them to be seen. We well recollect farmers who four or five years ago, could boast of the fat Durhams they had purchased, but now the sound has hushed and you cannot find their superior blooded stock. . . . Their owners thought they would continue fat and fine 'of course', and therefore made no preparations to take care of them."

In the last quarter of the eighteenth century the example of Bakewell and other English breeders began to attract the attention of a few of the more enlightened Southern planters and to stimulate interest in improvement of breeds by importation and selection. Maryland early took the lead, probably following the leadership of Pennsylvania. About the close of the eighteenth century Bordley declared that there was "a rage in America for *large* horses, *large* cattle, *large* sheep, *large* hogs."<sup>103</sup> About the same time Richard Parkinson, an English

<sup>98</sup> *Agricultural Museum*, I, 107; II, 92; Watson, *Men and Times of the Revolution*, 343, 374-376; Carey, M., *Addresses of the Philadelphia Society for the Promotion of National Industry*, pp. ix, 226; *Farmers' Register*, III, 116; VI, 50; X, 165; *Virginia Herald* (Fredericksburg), June 17, 1809.

<sup>99</sup> *Agriculturist*, II, 262; III, 95; *Southern Planter*, I, 69, 102, 104, 111; V, 77; VII, 282; *Farmers' Register*, VIII, 597; X, 89; *Farmer and Planter*, VIII, 249; *Franklin Farmer*, II, 135.

<sup>100</sup> *Ibid.*, II, 309.

<sup>101</sup> United States Agricultural Society, *Journal*, VII, 185; Tennessee, State Agricultural Bureau, *First Biennial Report, 1855-1856*, p. 232.

<sup>102</sup> II, 41; cf. also *Franklin Farmer*, II, 309.

<sup>103</sup> *Essays and Notes on Husbandry*, 161.

farmer, sailed for America with a view to becoming a tenant on one of Washington's farms. Parkinson brought with him a number of well-bred stock, including "the famous race-horses Phenomenon and Cardinal Puff, two blood stallions; ten blood mares, and four more blood stallions; a bull and a cow of the Roolright kind, a bull and a cow of the North Devon, a bull and a cow of the no-horned Yorkshire kind, a cow (with two calves, and in calf again) of the Holderness kind; and five boar and seven sow pigs, of four different kinds." Eleven of the horses, including Phenomenon, died on the voyage, but the rest of the stock arrived safely.<sup>104</sup> Parkinson found considerable interest and activity in Maryland in the importation and improvement of stock. General H. D. Gough had imported cattle from near York, in England, "something of the Tees-water kind," Chinese hogs, and broad-tailed Persian sheep. Gough, Holiday, General Ridgely, and others had sheep from the Cape of Good Hope. A Mr. O'Donnell had obtained a bull and two cows at a cost of £1,000 sterling. A Mr. Lloyd had imported a bull and two cows from Bakewell.<sup>105</sup>

The activity of Maryland and Pennsylvania in the development of improved breeds soon began to make itself felt in Virginia, where hitherto there had been little interest except in improvement of riding horses. In 1841 a prevalent breed of large cattle, with white backs, white faces, and frequently mottled with white in other parts of the body, generally known as Harding cattle, were said to be descended from stock imported by John Randolph some sixty years previously.<sup>106</sup> A number of other Virginia planters had been active about the same period in introducing improved breeds. Colonel Archibald Cary, of Chesterfield County, introduced stock of the "Old Shorthorn-Durham" breed. In the latter part of the eighteenth century a Mr. Hylton imported a variety known as "Boyington stock," much approved on account of the large oxen.<sup>107</sup> About 1808 George W. P. Custis, of Arlington, was actively advertising a breed of sheep called the Arlington Improved, "derived from the best improvements at Mount Vernon, combining the intermixture of several very valuable species, and particularly an imported Persian sheep."<sup>108</sup>

#### BREEDS OF CATTLE

In the last decade of the eighteenth century an English bull was imported by Matthew Patton in the farming region along the south branch of the Potomac. The crossing of this animal with the native breeds resulted in a greatly improved strain. Animals of this "Patton stock" were purchased by a Mr. Miller, of Augusta County, Virginia, who imported several other English bulls and also a number of short-horned cattle from Maryland, which were subsequently

<sup>104</sup> Parkinson, *Tour*, I, 3-5.

<sup>105</sup> *Ibid.*, 75-77, 228, 287-289; Washington, *Writings* (Ford), XII, 102.

<sup>106</sup> *Agriculturist*, II, 4.

<sup>107</sup> Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 167.

<sup>108</sup> *Importance of Encouraging Agriculture . . . with an Account of the Improvements in Sheep at Arlington*, 12-14.

crossed with the Patton stock. These strains exerted a great influence upon the cattle of western Virginia.<sup>109</sup>

These events were of even greater significance through laying the foundation for the beginnings of improved cattle breeding in the bluegrass areas of Kentucky. A number of accounts differing slightly in details were subsequently published, but the following personal recollections, written in 1839 by Benjamin Harrison, of Woodford County, Kentucky, a grandson of Matthew Patton, are probably authentic:<sup>110</sup>

"The impression that Matthew Patton, Sr. was the first individual that brought blooded cattle to Kentucky, is incorrect. The facts are, that some two or three Mr. Pattons, the sons, and a Mr. Gay, the son-in-law of Matthew Patton, Sr., brought some half blooded English cattle (so called) a bull and some heifers, as early as 1785, or thereabouts, and settled near where Nicholasville in Jessamine county now stands. The cattle were from the stock of Matthew Patton, Sr., who then resided in Virginia. These cattle I never saw and know but little about. I have heard them spoken of as being large at that day and have always understood that they were the calves of a bull owned by Matthew Patton, Sr., which he purchased of Gough of Maryland, who was an importer of English cattle. I never saw that bull but have often heard my grandfather (Matthew Patton, Sr.) speak of him. He described him as being very large and of the *long horned breed*. Matthew Patton, Sr. emigrated to Kentucky, about the year 1790, and brought with him some six or more cows, calves of the long horned bull before mentioned. . . .

"About the year 1795, Matthew Patton, Sr. procured from the before-mentioned *Gough*, through his son, William Patton, a bull called Mars, and a heifer called Venice, both of which were sold by Gough as full brooded English cattle, but like the importation of 1817, they had no other pedigree. The bull was a deep red, with a white face, of good size, of round full form, of more bone than the popular stock of the present day, his horns somewhat coarse. The heifer was a pure white except her ears which were red, of fine size, high form, short crumply horns turning downwards. She produced two bull calves by Mars and died. One of these bulls was taken to the neighborhood of Chillicothe, Ohio, by Wm. Patton and the other to Jessamine county, Ky., by Roger Patton. Mars remained in the possession of Matthew Patton, Sr. until his death, in the year 1803. . . . The bull calves that he produced were nearly all permitted to run for breeders; consequently every person in a large section of the country, had an opportunity of breeding to half blooded bulls, which effected a great improvement in the stock of cattle in a large portion of Clarke county and a small portion of Bourbon county. . . . All the bull calves that were bred by Patton and his family, were sold to persons in all the different sections of this State and some to persons living in other States. . . .

"In 1803, *Daniel Harrison*, (*my father*,) *James Patton* and *James Gay*, purchased of a Mr. Miller of Virginia, who was an importer of English cattle, a two year old bull, called Pluto, . . . Pluto was a dark red or brindle, and when full grown, was the largest bull I have ever seen, with an uncommonly small head and neck, light, short horns, very heavy fleshed, yet not carrying so much on the most desirable points as the fashionable stock of the present day, with small bone for an animal of his weight. . . . He was bred upon the cows produced by the Patton bull Mars, which produced stock

<sup>109</sup> *American Farmer*, 1 series, III (1821-2), p. 112; cf. also account in *United States Census*, 1860, *Agriculture*, p. cxxxii; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 168.

<sup>110</sup> *Franklin Farmer*, II, 196.

that has rarely been excelled in all the essential qualities of the cow kind. They were unquestionably the best *milkers* that have ever been in Kentucky, taken as a stock in the general, and but little inferior in point of *form* to the most approved stock of the present day, and of greater *size*."

It is probable that the native stock of the eastern border States were largely of Devon descent, having been obtained from the country adjacent to Plymouth, from which port so many of the early expeditions sailed. Early importations after the Revolutionary War appear to have given preference to long-horned cattle, probably also from the south of England. It is not certain that the Gough cattle were Devons, but this appears to have been the prevailing impression in Kentucky.<sup>111</sup>

The long-horned "Patton stock" were the reigning favorites of Kentucky breeders until 1817, a year notable in the history of Kentucky breeding. In that year Lewis Sanders, of Kentucky, imported a number of English cattle, comprising four short-horned bulls, four short-horned cows, two long-horned bulls, and two long-horned cows. From these and the Tegarden animals, short-horns, long famous as "the importation of 1817," sprang the notable breed of shorthorns, or Durhams. In the course of the next decade other importations of the same breed were made, either from the North or direct from England.<sup>112</sup> In 1817 Henry Clay imported Herefords into Kentucky, and he and other stock raisers experimented with them extensively. By 1840, however, the shorthorns held almost undisputed sway, although many preferred a small mixture of Patton stock to increase size.<sup>113</sup>

Before the close of the ante bellum period many other important breeds found their way to the South, either by direct importation or by introduction from the North, including the Devon, Ayrshire, Holderness, Khaisi, Alderney, Galloway, Tuscan, Yorkshire, and Lincolnshire breeds.<sup>114</sup> Many planters believed the Herefords and shorthorns unsuited to the poor pastures and lack of care characteristic of plantation regions.<sup>115</sup> The Devons, though smaller, were the most generally favored of the imported breeds in the lower South and in many parts of the border States, because of their hardihood and general utility as draft animals, milkers, and beef cattle. Some planters preferred Ayrshires and Tuscans for similar reasons.<sup>116</sup>

#### BREEDING OF HORSES AND MULES

The passionate interest in fine horses had resulted in importations of many fine strains of riding and carriage horses during the colonial period. In 1835 it

<sup>111</sup> *Franklin Farmer*, III, 165; *Farmers' Register*, VIII, 195; *Agriculturist*, II, 4.

<sup>112</sup> From the account by Sanders, in *Franklin Farmer*, III, 165; *Farmers' Register*, VIII, 195.

<sup>113</sup> *Franklin Farmer*, III, 68, 165, 292; *Carolina Planter* (1840), p. 266; *Farmers' Register*, VIII, 195; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 553.

<sup>114</sup> *De Bow's Review*, VII, 199; *Hunt's Merchants' Magazine*, XXXIII, 236; United States, Patent Office, *Annual Reports*, 1847, p. 376; *Agriculture*, 1849, p. 161; 1853, p. 11; 1854, p. 14; *American Farmer*, 4 series, III (1847-8), p. 78; *Southern Cultivator*, IV, 171; VI, 145; VIII, 88; XVI, 21; Fearon, *Sketches of America*, 237; *Carolina Planter* (1840), pp. 58, 65, 73; *Southern Planter*, IX, 86; XX, 255; *Farmer and Planter*, II, 105.

<sup>115</sup> *Carolina Planter* (1840), p. 58; *Southern Planter*, I, 12; *Farmers' Register*, VIII, 303; *Franklin Farmer*, III, 67.

<sup>116</sup> United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 138; 1854, pp. 14, 20; 1855, pp. 21-22; *Southern Cultivator*, XVI, 117; *Carolina Planter* (1840), pp. 58, 178; *Farmers' Register*, I, 643.



was stated that the best English blood had been "most diligently and purely preserved in the Southern States. The celebrated Shark, the best horse of his day, and equalled by few at any time, was the sire of the best Virginian horses."<sup>117</sup> The Revolutionary War and the War of 1812 greatly stimulated the demand for fine riding horses. In 1815 good saddle horses in Virginia sold for \$150 to \$200, some of the best had brought \$500 to \$600, a pair of good carriage horses \$400 to \$500, and some \$700 to \$800. Fine race horses had sold for \$2,000 to \$3,000, and stud horses for \$1,000 to \$6,000. There was one animal bred in the State, Florizell by name, valued at \$10,000.<sup>118</sup> In 1818 the Albemarle Agricultural Society appointed a committee to import a horse of the best Spanish blood.<sup>119</sup> It is probable, however, that gradually interest in horse breeding slackened somewhat in the older Southern States. In the Carolinas and Georgia planters became more and more absorbed in the production of the staples. About 1845 an agricultural writer declared:<sup>120</sup>

"In Eastern Virginia we are now raising no horses at all, and this country, which from soil and climate has been demonstrated to be *the* 'race horse region', is now supplied with a heavy coarse, ungainly animal, the product of other climes."

The opportunity for the profitable breeding of draft horses and mules was seized by the alert breeders of Kentucky, Tennessee, and Missouri, who were quick to realize the value of their excellent bluegrass pastures for raising all classes of horses.<sup>121</sup> In 1840 a Kentucky editor, speaking of a forthcoming stallion show in that State, declared, "We think no part of the Union can vie with us, from the high mettled racer to the seventeen-hands-high 'sod breaker.'"<sup>122</sup> There were also many fine stallions of various classes in Tennessee.<sup>123</sup> In the later decades of the period some improvement of the common stock of the lower South was effected by the importation of fine stallions from Kentucky, Tennessee, and the North.<sup>124</sup>

There were but few mules in the South until after the Revolutionary War. Farmers and planters had been prejudiced against them because of their inferior quality. The turning point came in the gift by the King of Spain to President Washington of two Spanish jacks, only one of which survived the voyage. Washington also received a gift of a Maltese jack and two jennets from Lafayette. The Spanish jack was adapted to heavy draft service, and the Maltese animals to the saddle or light carriages. Washington was assiduous in crossing the two imported types and in employing them to improve the quality of the native stock. He soon "produced such superb mules that the country was all agog to breed some of the same sort, and they soon became quite common."<sup>125</sup>

<sup>117</sup> *Ibid.*, II, 597.

<sup>118</sup> Warden, *Account of the United States*, II, 215 n.

<sup>119</sup> True, "Early Days of the Albemarle Agricultural Society," in Amer. Hist. Assn., *Annual Report*, 1918, I, 251.

<sup>120</sup> *Southern Planter*, V, 13.

<sup>121</sup> Birkbeck, *Notes on a Journey in America*, 25; *Southern Planter*, V, 157; XIII, 231, 328; XVII, 508.

<sup>122</sup> *Franklin Farmer*, III, 243.

<sup>123</sup> See list for 1842, in *Agriculturist*, III, 96. See also below, p. 854.

<sup>124</sup> *Southern Agriculturist*, III, 537; *Southern Cultivator*, XV, 40; XVI, 21, 184; United States, Patent Office, *Annual Report*, 1847, p. 376.

<sup>125</sup> *Farmer and Planter*, VII, 252; Washington, *Letters on Agriculture*, 25; *Farmers' Register*, V, 324;

The use of mules gradually spread. David Rogerson Williams claimed to have been the first to introduce mules, as late as 1804, for field work in South Carolina.<sup>126</sup> It gradually became a widely held opinion of Southern farmers and planters that mules were preferable to horses for field work. It was thought that mules required less grain than horses when working, and could subsist to better advantage merely on roughage when not working, that they matured earlier, were much hardier under careless treatment by Negroes, less likely to become frightened, less liable to disease, would attain a greater average age, and would tread down less corn and cotton in cultivation.<sup>127</sup> They were readily adopted by the planters of the Southwest, and the demand soon provided a profitable outlet at fancy prices for the breeders of Kentucky, Tennessee, and later Missouri.<sup>128</sup> In the last few decades the South Atlantic States also became an important market.<sup>129</sup>

The planters of the western border States seized the opportunity thus afforded. The importation of a Maltese jennet into Kentucky by Henry Clay in 1827 was followed in 1832 by importation of a jack. The Kentucky strain was further improved by the blood of the imported jack Mammoth and the remarkable jack Warrior, brought from Maryland. The mule industry in Missouri probably began with the importation of mules from New Mexico after the beginning of the Sante Fe trade in 1821. As early as 1838 two Maltese jacks were imported via New Orleans. In a few years Missouri breeders were competing strongly for the trade of the lower South.<sup>130</sup>

Oxen were highly esteemed by many for somewhat similar reasons that mules were preferred to horses. President James Madison was early an enthusiastic advocate of oxen, emphasizing their ability to subsist largely on roughage.<sup>131</sup> It was claimed also that the first cost was frequently not more than one fifth that of horses, and that after working oxen for five or six years it was possible to fatten them for butchering. Some objected that they were less tractable than horses, did not bear heat so well, were less adapted to the single plow in cultivating, and less useful in hauling produce.<sup>132</sup> It is probable that oxen were more generally employed in the Appalachian highlands and the older plantation regions than in the newer commercial farming and planting regions.

cf. *Farmer and Planter*, VII, 252; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 84; *Virginia Herald and Fredericksburg Advertiser*, Mar. 24, 1791.

<sup>126</sup> Cook, H. T., *David Rogerson Williams*, 166-168.

<sup>127</sup> *Southern Cultivator*, V, 61; VII, 50; Allardice, *Agricultural Tour*, 99; Murray, C. A., *Travels in North America*, I, 169; *Country Gentleman*, VI, 128; United States, Patent Office, *Annual Reports, Agriculture*, 1849, p. 161; 1855, p. 40; *Farmer and Planter*, III, 107; *Tennessee Farmer*, I, 58; *Southern Planter*, X, 84; *Farmers' Register*, II, 15.

<sup>128</sup> *Tennessee Farmer*, I, 58; *Southern Planter*, X, 84; *Valley Farmer* (St. Louis), IX, 371; *Southern Cultivator*, XV, 363; Smith, J. G., *East Tennessee*, 8; *Farmers' Register*, VII, 590.

<sup>129</sup> *Carolina Planter* (1844-5), I, 140; *Farmer and Planter*, III, 22; *The Arator*, I, 183; *Farmer's Journal*, II, 83; *American Farmer*, 1 series, XI (1829-30), p. 216; United States, Patent Office, *Annual Reports, Agriculture*, 1851, pp. 277, 326, 338; 1855, pp. 38, 40, 43.

<sup>130</sup> Ashton, *History of Jack Stock and Mules in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XXII, No. 8), pp. 6-24.

<sup>131</sup> Address before the Albemarle Agricultural Society, reprinted in *Farmers' Register*, V, 420.

<sup>132</sup> *Farmers' Register*, II, 15; V, 420; *Southern Agriculturist*, I, 176; V, 286; *Southern Planter*, IV, 4.

## BREEDS OF HOGS, SHEEP, AND GOATS

The common hogs of the South were of the nondescript breed that resulted from the innumerable and indiscriminate mixtures of original introductions. These native hogs were locally known as "land-pikes" and "razor backs"—terms that aptly describe their qualities. Many improved breeds were introduced during the first half of the nineteenth century. Importations from the North or from Europe include the Berkshire, Bedford, Barnitz, Hampshire, White Berkshire, Byfield, Mackey, Neapolitan, Suffolk, Lincoln, Chester, Essex (sometimes called Skinner after John S. Skinner, who introduced them), China, Russia, Woburn (sometimes called Bedford), Calcutta, Guinea, Portuguese, and Irish Graziers. The Berkshires and Irish Graziers were apparently in greatest favor.<sup>133</sup>

The Saxon merino, Spanish merino, Cotswold, Leicester (Bakewell or Dishley), and Southdown breeds of sheep were introduced in the South. In 1859 Colonel Miles of the army sent two Navajo rams from New Mexico to the newly organized agricultural college of Maryland.<sup>134</sup> After the passing of the merino craze, the Southdowns seem to have become generally preferred, as the principal need of the South was for mutton. Native sheep, because of their hardihood, were preferred by many.<sup>135</sup> However, their wool was coarse and commanded relatively low prices. In the forties a wool factory in Virginia, manufacturing flannels, was compelled to purchase wool in England and the North.<sup>136</sup>

In 1849 Dr. J. B. Davis, of Columbia, South Carolina, imported a number of Cashmere goats. Their number multiplied, and they were widely distributed throughout the South.<sup>137</sup>

## IMPROVEMENT OF BREEDS IN VARIOUS REGIONS

The extent of activity in improvement of breeds differed greatly as between various parts of the South. After about 1830 the bluegrass region of Kentucky became the center of greatest activity in the introduction and development of fine breeds, and agents were sent annually to England to procure the best specimens.<sup>138</sup> In 1838, describing the Jefferson County fair, the *Louisville Journal* declared, "We were astonished to see the number of blooded cattle at the exhibition—some as fine animals as can be found any where."<sup>139</sup> About the same time

<sup>133</sup> *American Agriculturist*, II, 78; *Southern Cultivator*, I, 121; III, 97; VI, 157; VII, 67; XV, 36, 312; United States, Patent Office, *Annual Reports*, 1847, p. 376; *Agriculture*, 1850, pp. 189, 195, 287; 1851, p. 331; 1854, p. 56; 1855, p. 63; *Country Gentleman*, III, 263; Kentucky State Agricultural Society, *Report*, 1856–1857, pp. 91, 553; *Agriculturist*, II, 226; *Farmers' Register*, VIII, 41, 630; IX, 50, 97; *Carolina Planter* (1844–5), I, 219; *Farmer and Planter*, V, 271; *Franklin Farmer*, III, 142; *Southern Planter*, XX, 441.

<sup>134</sup> United States Agricultural Society, *Journal*, VII, 187.

<sup>135</sup> *American Farmer*, 3 series, III (1841–2), pp. 173, 202; *American Agriculturist*, II, 204; III, 211; IV, 253; *Hunt's Merchants' Magazine*, XXXI, 762; *Southern Cultivator*, III, 105, 149; VII, 97; XV, 36–37; XVI, 64; *Country Gentleman*, XIII, 288, 332; United States, Patent Office, *Annual Reports, Agriculture*, 1849, pp. 135, 161; 1854, p. 49; 1855, p. 53; Kentucky State Agricultural Society, *Report*, 1856–1857, pp. 89, 553; *Farmers' Register*, VI, 546–548; *Farmer and Planter*, III, 12; *Southern Planter*, XII, 180.

<sup>136</sup> *Ibid.*, VII, 66, 161; IX, 269.

<sup>137</sup> Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856–1857, p. 64; United States Agricultural Society, *Journal*, VII, 190.

<sup>138</sup> *Farmers' Register*, IX, 57; *Farmer and Gardener*, III, 396.

<sup>139</sup> Reprinted in *Franklin Farmer*, II, 77.

Captain Frederick Marryat saw at the Lexington fair a fine jack, Warrior by name, sold for \$5,000. A two-year-old jack was priced at \$3,000. He was told that by the importation of fine Spanish jacks the height of the best grade of Kentucky mules had increased from 14 to 16 hands.<sup>140</sup> In addition to his importations of Hereford cattle, Henry Clay was active in bringing in shorthorn cattle, sheep, and hogs, and asses from Italy; and his son, Henry Clay, Junior, imported from England fine shorthorn cattle, besides blooded mares, jacks, and jennets.<sup>141</sup> In 1857 the county agricultural associations of Mason and Bracken counties expended \$14,000 in importing from England twenty cattle and the fine coach horse, Lord Ragland.<sup>142</sup> One of the most active importers and breeders was Robert A. Alexander, of Woodford County, whose farm contained 2,700 acres stocked with 188 head of fine cattle, 59 of them imported from England. For one animal he had paid \$4,525, for another \$3,050, and for another \$2,200.<sup>143</sup> In 1852 several gentlemen in Fayette, Bourbon, and Woodford counties sent three of their members to England with instructions to "buy the very best cattle, horses, and sheep which money could procure." There were numerous instances of individual cows, bulls, and horses selling for thousands of dollars.<sup>144</sup> The large number of pedigreed stock in the State called for some method of systematic registration. For some years the *Franklin Farmer* systematically published data on pedigreed stock, and about 1838, steps were taken to publish a herd book for Kentucky.<sup>145</sup>

Middle Tennessee was the only other region that approached the bluegrass region of Kentucky in the importation of fine stock and in selective breeding. Lists of prizes and pedigrees offered at fairs testify to the great number and variety of fine stock. Sumner County was notable for the presence of Leviathan, the most popular draft stallion in America. Doctor Shelby, of Nashville, imported the famous Berkshire boar Ne Plus Ultra. Middle Tennessee boasted the fine Durham bull Frederic, the peerless Sam Patch, and the stallion Belshazzar, second only to Leviathan in popularity.<sup>146</sup> Mark Cockrill, of Davidson County, won the prize at the London, England, world's fair for the finest specimen of Saxony sheep. He imported fine specimens from the best flocks in the world, crossing the Saxony sheep with the Bakewell (Dishley or Leicester) to produce larger sheep with more abundant and finer wool. Cockrill maintained a farm near Nashville of about 5,000 acres, mostly pasture, on which were maintained some 2,300 head of sheep and about 700 horses, mules, and cattle.<sup>147</sup>

<sup>140</sup> *Diary in America*, II, 194-196.

<sup>141</sup> Hall, F., *Letters from the East and West*, 131; *Farmers' Register*, VIII, 195; *Franklin Farmer*, II, 397; cf. *ibid.*, III, 4.

<sup>142</sup> Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 185, 195.

<sup>143</sup> *Western Farm Journal*, I, 206.

<sup>144</sup> United States Agricultural Society, *Journal*, I, Nos. 3-4, pp. 156-157; VIII, 267; Kentucky State Agricultural Society, *Report*, 1856-1857, p. 244; *Farmers' Register*, VI, 557; VII, 9, 590.

<sup>145</sup> *Kentucky Gazette* (Lexington), June 29, 1837; *Franklin Farmer*, II, 398; III, 4, 166; *Farmers' Register*, VIII 42.

<sup>146</sup> *Agriculturist*, I, 20; II, 91, 147, 187; III, 41-43; Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856-1857, pp. 241, 347, 388.

<sup>147</sup> *Agriculturist*, II, 255; *Farmer's Book, or the Western Maryland Farmer*, I, 39; Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 44.

Another of the livestock barons, L. J. Polk, specialized in race horses. On his farm in Maury County he had many fine stallions and mares imported from England or bred on his estate. A visitor in 1841 declared that there was "such a managery of blooded stock as were rarely ever beheld before."<sup>148</sup>

Although the medium for the earliest introduction of improved stock into Kentucky, Virginia failed to keep up with her daughter State in the breeding of fine stock. R. K. Meade, whose activity in the upper Shenandoah valley in the early decades of the nineteenth century exercised considerable influence toward improving the stock of that region, was notable for his fine Durham cattle, the progenitors of which were obtained from Pennsylvania. Meade crossed them on native stock selected for high milk production. He also enjoyed a reputation for Bedford hogs and fine sheep, including purebred Bakewells which he crossed with merinos and probably also with Saxons with a view to improving the wool. As a result of the activity of Meade and other breeders cattle of good quality were scattered through various parts of the Valley and western Virginia.<sup>149</sup> In eastern Virginia Edmund F. Noel, of Essex County, was early notable for zeal in improving breeds of stock. In 1825 he purchased some Devons, imported in 1817 by Messrs. Patterson and Caton, of Baltimore, which he employed to cross with the native breed. Three years later he obtained some of Colonel Powel's Durhams, and he also tried Bakewell and Southdown sheep and Barnitz and Berkshire hogs.<sup>150</sup> In the late thirties the influence of Ruffin's *Farmers' Register* and of agricultural societies induced a greater activity on the part of some of the better planters to improve their livestock, and at the stock fairs there was brought together a considerable variety of good breeds.<sup>151</sup> In 1845 A. W. Nolting, near Richmond, had imported a fine flock of sheep, and a Mr. Little had a flock of Guadeloupe and Paular merinos. About this period some fine specimens of sheep were imported from Holstein, and a few years later Colonel Ware won a premium at the fair of the Maryland Agricultural Society for the best imported Cotswold ram and ewes.<sup>152</sup> During the thirties Corbin Warwick purchased a number of pedigreed English cattle.<sup>153</sup>

Maryland, notable for its early interest in improved breeds, boasted a number of planters active in the breeding of purebred stock. The first annual fair of the Maryland State Agricultural Society was featured by exhibits of Durham and Devon cattle shown by such breeders as John Skinner, Richard Caton, John Mercer, Charles Carroll, and a number of others. There were also Irish, Berkshire, and Ulster hogs, and Southdown and Bakewell sheep.<sup>154</sup>

It was inevitable that the migrating stream of Kentuckians and Tennesseans

<sup>148</sup> *Agriculturist*, II, 147. Concerning the distinguished pedigree of one of his mares, see Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856-1857, pp. 211-215.

<sup>149</sup> *Farmers' Register*, I, 350, 486; II, 125; VIII, 51.

<sup>150</sup> Virginia, Board of Agriculture, *Report (House Journal and Documents*, 1842-43, Doc. 12), p. 16; *Farmers' Register*, X, 241.

<sup>151</sup> *Ibid.*, I, 193; II, 493; V, 460, 614; VI, 290; VIII, 516; Virginia State Agricultural Society, *Journal of Transactions*, I, 137-142.

<sup>152</sup> *Southern Planter*, V, 35, 68; X, 3, 354.

<sup>153</sup> *Farmers' Register*, I, 127; V, 377.

<sup>154</sup> *Ibid.*, VIII, 574.

would carry the industry of livestock breeding into Missouri, where lands adapted to bluegrass were found in abundance in the river valleys and prairies. In addition to developing the mule industry, already mentioned, the Missourians early began to introduce fine strains of cattle. A notable pioneer in this regard was Nathaniel Leonard, of Cooper County, who imported in 1839 from Ohio the "first approved pedigreed Shorthorn bull to enter the State of Missouri." Soon other breeders were active in importing and breeding fine cattle, and though the development was retarded by the depression of the forties, both in Kentucky and Missouri, there was renewed activity during the last decade of the period, and the river counties soon boasted large numbers of fine stock.<sup>155</sup>

The introduction of purebred livestock was much less extensive in the lower South than in the border States, but, nevertheless, there was sporadic activity. The Agricultural Society of South Carolina is said to have held its first stock show in 1822, and two fine horses were the only stock exhibited. The next year premiums were offered for stallions, mares, bulls, boars, and rams, but there were no awards for cattle and only two for horses. A hog weighing 1,146 pounds was exhibited. Before 1824 Tuscan cattle had been introduced into the State by Commodore Bainbridge, and in 1828 it was proposed to exhibit a pair of Dishley sheep.<sup>156</sup> The paucity of the exhibitions suggests the fewness of fine stock, though a few gentlemen bred thoroughbred race horses. In the fifth decade the depression in cotton stimulated considerable activity in South Carolina in the introduction of purebred stock, including Durham, Hereford, Devon, Tuscan, and Ayrshire cattle; Cobbett, China, Norfolk, Bedford, Irish, Guinea, Neapolitan, and Berkshire hogs; and Merino, Bakewell, Saxon, Southdown, and Tunisian sheep.<sup>157</sup> During the following decade Colonel Wade Hampton and B. F. Taylor, of Columbia, maintained "magnificent flocks" of pure blooded Leicester sheep. A. G. Summer bred the same kind of sheep and also interested himself in Durham cattle.<sup>158</sup>

There were also reports of interest in improved livestock in other States of the lower South. In Georgia a grandson of Judge Peters, of Pennsylvania, was active as an importer and breeder of purebred Devon, Shorthorn, and Ayrshire cattle, Southdown and Saxony sheep, Suffolk and Berkshire hogs, Bremen geese, Brahma Pootra and Shanghai poultry, and Madagascar rabbits.<sup>159</sup> Alabama also boasted a sprinkling of well-bred stock. Planters brought with them from the other States an interest in fine saddle horses, and indulged this luxurious taste when possible.<sup>160</sup> At the Montgomery County fair in 1843 an observer found "a goodly number of different breeds of hogs, sheep, cattle, mules, and

<sup>155</sup> Ashton, *History of Shorthorns in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XXI, No. 11), pp. 12-31, 37-47; *idem*, *History of Hogs and Pork Production in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XX, No. 1), p. 49; Perrin, *Fayette County, Kentucky*, 190; Cowan, *Shorthorn Cattle in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XII, No. 12), pp. 6-10.

<sup>156</sup> Walker, C. I., *History of the Agricultural Society of South Carolina*, 56; Agricultural Society of South Carolina, *Original Communications*, 29.

<sup>157</sup> *Carolina Planter* (1840), pp. 1, 10, 33, 149, 316, 369-371; *Agriculturist*, II, 234; *Southern Agriculturist*, new series, III, 397.

<sup>158</sup> *Farmer and Planter*, III, 12; IX, 10; X, 318; *Carolina Planter* (1844-5), I, 79, 260.

<sup>159</sup> Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, p. 221.

<sup>160</sup> Abernethy, *Formative Period in Alabama*, 134.

horses." Among the hogs was a mammoth boar, weighing 1,100 pounds. The observer declared:<sup>161</sup>

"The mules and horses were tolerably fair. The Durham stock, although not equal in form and size to Frederic and many others in Tennessee; yet a bull owned by Merriweather, and a cow, I forget whose, were decidedly superior to any I have seen in South Alabama, are fair specimens and very decided improvements over the common stock. . . .

"The exhibition of the Berkshire hogs was large and of very superior animals, surpassed but by few, if any, I ever saw, and probably is little inferior to any in Tennessee or Kentucky."

There was also activity in stock improvement along the lower Mississippi. A letter from this region written about 1842 stated:<sup>162</sup>

"Very superior blood horses are now produced here, and quite fair ones of the utilitarian kind. Mules are not bred as large as in Kentucky, but in these they are improving. Short Horn, Hereford, Devon and Ayrshire cattle have been sparingly introduced, and the benefits of their crosses are beginning to show, while the Chinese and Berkshire hogs are occasionally seen scattered along on the plantations. There are some fine flocks of Merinos and Saxons, and now and then a South down and Leicester. . . .

"Among the most efficient that we recollect in introducing improved stock into the [lower] South, are Messrs. Bagg & Wait, who went twice out to England for this purpose, and brought back Short Horns, Cart Horses, and Cleveland bays; South Down and Leicester sheep, and Berkshire hogs. Mr. Robt. W. Scott, of Kentucky, took a fine lot of Short Horns to Mississippi last winter, and Mr. Affleck, editor of the Western Farmer and Gardener, embarked early last fall with a superior lot of cattle and swine from the States of Ohio and Kentucky, and remained all winter, and took particular pains in distributing his animals as widely over the country as possible. Many others have doubtless contributed more or less to the introduction of superior stock into that region."

<sup>161</sup> *Agriculturist*, IV, 25.

<sup>162</sup> *Ibid.*, III, 201; cf. *Southern Agriculturist*, VII, 17; *Farmers' Register*, II, 700.





PART VII

GEOGRAPHIC EXPANSION AND REGIONAL  
DEVELOPMENT



## CHAPTER XXXVI

### TRANSMONTANE EXPANSION OF GENERAL FARMING

Expansion of Settlement in Farming Regions West of the Appalachians, 861. Early Stages of Economic Development, 866. Transport to Markets, 868. Development of the Slavery Economy, 871. Characteristics of the Various Regions West of the Blue Ridge, 875. Cotton and Tobacco Areas in Border States West of the Blue Ridge, 885.

#### EXPANSION OF SETTLEMENT IN FARMING REGIONS WEST OF THE APPALACHIANS

The progress of agricultural expansion has been previously traced to the time when the waves of population were breaking across the formidable Appalachian barrier, and nuclei of settlement established in the heart of Kentucky and Tennessee. We have now to trace the further expansion and development of general farming beyond the Appalachians. After the stream of settlement crossed the Mississippi river into Missouri, we shall observe it less closely, for it gradually became so intermingled with population streams from the North that the resulting agricultural economy and rural organization were less characteristically Southern than in Kentucky and Tennessee.

With characteristic pioneer prescience in the selection of land, the earliest settlements in Kentucky were made in the area of the Inner Blue Grass, a region characterized for the most part by gently rolling topography and phosphatic limestone soils of great fertility, unusually adapted to the production of grain and nutritious grasses. When cleared they yielded under average conditions 50 to 60 bushels of corn and 30 bushels of wheat. Although five sixths of the present area of the State was then covered with heavy timber which presented a formidable problem in land clearing, the early pioneers found large patches of open lands frequently covered with nutritious cane that grew to 10 or 12 feet in height and was said to be capable of fattening cattle; and there were open meadows covered with wild rye, clover, and buffalo grass. According to an early tradition, bluegrass was first introduced by John Findley, who built a cabin in 1752, in what is now Clark County, and scattered some bluegrass hay with which he had packed his goods when he left Lancaster, Pennsylvania. However, references to bluegrass meadows within a few years after settlement indicate the probability that it had spread naturally to the region from the older Colonies or possibly had been introduced by French fur traders.<sup>1</sup> The section of the State earliest occupied abounded with salt "licks," thus making easily available one of the indispensable articles of pioneer economy. These licks were congregating points for the abundant game and therefore for Indian and white hunters.<sup>2</sup>

<sup>1</sup> Carrier & Bort, "History of Kentucky Bluegrass and White Clover," in *Amer. Soc. of Agronomy, Journal*, VIII, 262-266; Beckner, "John Findley, the First Pathfinder of Kentucky," in *History Quarterly*, I, 114.

<sup>2</sup> Walker, T., *Journal*, in J. S. Johnston, "First Explorations of Kentucky" (*Filson Club Publications*, No. 13), *passim*; Fleming, *Journal* (Mereness, Travels), 627; Cuming, *Tour to the Western Country*, 156; Filson, *Kentucke*, 18, 23-25; William Brown's account of his journey to Kentucky in 1790, in *Speed*,

While the greater part of the territory was unoccupied by Indians, it was the favorite hunting ground and perpetual battle ground for the northern and southern tribes, who did not relinquish this fair land without a struggle. The footholds established by the whites were maintained and extended only after a protracted border warfare of the most desperate character. For the most part, the early colonists in Kentucky, as well as their comrades in the Cumberland settlements, were on the defensive, although occasional punitive raids were made into enemy territory across the Ohio and along the upper Tennessee. The settlers were compelled to resist attacks in force by considerable armies of Indians, such as the expeditions of Captain Daigniau de Quindre in 1778; of Colonel Henry Bird in 1780; and of Caldwell and McKee in 1782.<sup>3</sup> During the first fifteen years of its existence the little hamlet of Nashville suffered mortality averaging one human being every ten days.<sup>4</sup> For the most part, however, the struggle consisted of surprise attacks by small bodies of Indians, directed against isolated homes or the small groups of fortified log cabins, or "stations." Although a sort of armed truce prevailed from 1783 to 1787, occasional forays continued; and after this period the war raged again, intensified by the bloody defeat of Harmar's expedition.<sup>5</sup> Peace was not established until 1795, when the Indians were crushingly defeated by Wayne.

In 1776 the territory occupied by Virginia south of the Ohio was organized into a county. During the next two years population increased slowly but steadily, and the Autumn of 1779 brought a large increase. In that year a land court was established at St. Asaph (Logan Fort),<sup>6</sup> near Stanford. The coming of peace greatly stimulated the tide of immigration. Thousands of Revolutionary officers and soldiers came out to locate land bounties or to purchase large holdings for a song, under the easy land policies of Virginia and North Carolina. For the numerous settlers with little or no funds there were preëmption rights and instalment payments.<sup>7</sup> By 1780 the land commissioners had passed on claims for a total of nearly 3,500,000 acres.<sup>8</sup> Land speculation flourished in the new settlements. Eastern capitalists had acquired huge tracts of rich land, land jobbers were busy subdividing land for sale or lease, and under the loose Southern system of land grants numerous overlapping and conflicting claims arose, resulting in ceaseless litigation. Small and helpless squatters found themselves at a disadvantage in legal controversy.<sup>9</sup> Seldom has an area of this extent been settled

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*The Wilderness Road*, 63; Shaler, *Kentucky, a Pioneer Commonwealth*, 27-30, 226; Lewis Brantz's memorandum of a journey in 1785, in Williams, S. C., *Early Travels in the Tennessee Country*, 286.

<sup>3</sup> Roosevelt, *Winning of the West*, II, 21-23, 88, 103, 186-210; III, Chap. II.

<sup>4</sup> McMaster, *History of the United States*, II, 34; Gilmore, J. R., *Advance Guard of Western Civilization*, Chap. II.

<sup>5</sup> Roosevelt, *Winning of the West*, III, Chap. II, 304-310; McElroy, *Kentucky in the Nation's History*, Chap. III; *Georgia State Gazette or Independent Register* (Augusta), July 21, 1787.

<sup>6</sup> Todd, "Early Courts of Kentucky," in Ky. State Hist. Soc., *Register*, III, No. 9, pp. 33-35.

<sup>7</sup> Beckner, "History of the County Court of Lincoln County, Virginia," in Ky. State Hist. Soc., *Register*, XX, 172. See above, pp. 622-626.

<sup>8</sup> Fleming, *Journal* (Mereness, Travels), 655.

<sup>9</sup> Kilpatrick, "Journal of William Calk," in *Mississippi Valley Historical Review*, VII, 374; Robertson, J. R., "Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia," in *Filson Club Publications*, No. 27, pp. 6-8; cf. Roosevelt, *Winning of the West*, III, 1-9; *Kentucky Gazette* (Lexington), Aug. 2, 9, 16, 1788. See above, p. 396.

with such rapidity. The Kentucky "fever" raged as the Texas "fever" was to rage a half century later. Many travelled by Boone's Wilderness Road from east Tennessee through Cumberland Gap; others started from Pittsburgh or Red Stone Fort on the Monongahela; still others set out from the Greenbrier settlements by way of the Great Kanawha. In the early years the larger number came by the Wilderness Road, which was far less exposed to Indian attack than the routes requiring navigation of the Ohio; but after Wayne's victory the majority went by way of the Ohio. In the single year ending November, 1788, there passed down the river 967 boats, carrying 18,370 people, 7,986 horses, 2,372 cows, 1,110 sheep, and 646 wagons. By 1783 the population of Kentucky was about 12,000; in 1785, between 20,000 and 30,000. In 1790 there were 73,677, including 12,430 slaves.<sup>10</sup>

A large treeless area in southern Kentucky between the Green and Cumberland rivers, known as the "barrens," was long considered of little worth. The land is the subcarboniferous formation, and the shale and sandy soils proved much less attractive than the rich limestone lands to the northward. Moreover, the area was extremely isolated, and the settlers were compelled to market their products by the long, circuitous routes of the Green or Cumberland river systems. The liberal land policy developed between 1790 and 1800 resulted in the gradual settlement of the region, which was found to be fairly well adapted to grain, livestock, and tobacco, though not abounding in bluegrass pastures.<sup>11</sup> The region bordering the Ohio above Louisville and the Big Sandy valley on the border of eastern Kentucky developed slowly until after the Northwestern Indians were crushed.<sup>12</sup> By 1800, however, every part of the State was settled except the area west of the Tennessee river still occupied by the Indians.

The Cumberland settlement in the rich calcareous lands of middle Tennessee, established in the closing years of the Revolutionary War by the concerted migration of several hundred settlers, was rapidly settled under the stimulus of the generous military bounties authorized by the North Carolina land act of 1783.<sup>13</sup> In the extension of settlement in east Tennessee, begun in the latter part of the colonial period,<sup>14</sup> it was necessary to displace the strong Cherokee nation. The aggressions of the settlers continually stimulated the Indians to bloody reprisals, which in turn were repaid by punitive expeditions by the whites. The defeat of the Indians at Boyd's Creek in 1780 resulted in extending settlement as far south as the French Broad, and by 1784 land-hungry backwoodsmen had pushed as far as Big Island, along the Big and Lower Pigeon, and south of the French Broad; although the territory between it and the Tennessee river had been reserved for the Cherokees by act of the North Carolina legislature

<sup>10</sup> Roosevelt, *Winning of the West*, II, 95 & n.; III, 15; Shaler, *Kentucky, a Pioneer Commonwealth*, 108; *State Gazette of North Carolina* (Edenton), Nov. 12, 1789; *Georgia State Gazette or Independent Register* (Augusta), June 28, 1788; Speed, *The Wilderness Road*, 12, 22.

<sup>11</sup> Brown, S. R., *Western Gazetteer*, 83-85; *North Carolina Journal* (Halifax), May 15, 1793.

<sup>12</sup> Jillson, "Big Sandy Valley," in Ky. State Hist. Soc., *Register*, XX, 245; Sudduth, *Early Adventures in Kentucky* (History Quarterly, II), 46.

<sup>13</sup> Gilmore, J. R., *Advance Guard of Western Civilization*, Chap. I; *State Gazette of North Carolina* (Edenton), Oct. 20, 1788.

<sup>14</sup> See above, p. 626.

in the previous year. Between this time and the close of the century the continued pressure of the impatient settlers and a series of treaties pushed the Indians steadily down the valley.<sup>15</sup> For many years, however, the Cherokees retained their grip on the Tennessee river where it breaks through the mountain barrier, and there were Indians also along the lower reaches of the river, thus obstructing the most important of the routes from Virginia and North Carolina to the Southwest and the most practicable outlet for the products of east Tennessee. The remainder of the State was gradually opened to settlement. In 1786 the Chickasaws, who claimed the greater part of western Tennessee and Kentucky, agreed to an eastern boundary fixed at the divide between the basins of the Cumberland and Tennessee rivers.<sup>16</sup> A large area between the Tennessee and Duck rivers was acquired for settlement by James Robertson's treaty of July 23, 1805. Before the date of legal opening thousands had gathered along the boundary ready to cross. In 1805 the Cherokees ceded their title to a large area southeast of Nashville and north of a line connecting the forks of Duck River at Nash's fort with the upper Tennessee, opposite Hiwassee.<sup>17</sup> When in 1818 the Chickasaws were induced to surrender their title to the fertile cotton lands between the Tennessee and the Mississippi, west Tennessee was rapidly occupied by farmers and cotton planters, thousands of whom had eagerly looked forward to the opening of the new territory. By 1830 the population numbered approximately 100,000.<sup>18</sup>

The settlement of Missouri was accomplished by an extension of the same stream of migration which established the commonwealths of Kentucky and Tennessee, but with far less difficulty and hardship from Indian warfare. The original nucleus of settlement had been established by the French, who as early as the third decade of the eighteenth century began to exploit the rich mineral resources of the Ozark center just west of the Mississippi flood-plain in southwestern Missouri, and subsequently established a few villages along the river devoted to the lead and fur trades, with some farming. The cession of the eastern side of the river to Great Britain in 1763 stimulated a considerable immigration of French settlers from that region.<sup>19</sup> The problem of Anglo-Saxon colonization involved mainly building upon a foundation peaceably acquired.

For some years before the Louisiana Purchase the Spanish Government had been trying to divert the stream of Anglo-Saxon settlement to the western side of the Mississippi, and its land policies had been directed to that end. Land cost the new settler only the small charges for survey. Under a decree of September, 1797, settlers were allowed 200 arpents for a married man, 50 for each child, and 20 for each slave, no grant to exceed 800 arpents. The settler in turn incurred obligations for making certain improvements, and there were certain safeguards to prevent speculation. Unfortunately, when the news of the Cession

<sup>15</sup> Ramsey, *Annals of Tennessee*, 262-276, 280, 299, 369-374, 556, 696.

<sup>16</sup> *Ibid.*, 463.

<sup>17</sup> Putnam, *History of Middle Tennessee*, 569, 571, 576.

<sup>18</sup> Brown, S. R., *Western Gazetteer*, 239; Killebrew, *Resources of Tennessee*, 1014; Williams, S. C., *Beginnings of West Tennessee*, 114, 119-123.

<sup>19</sup> Violette, *History of Missouri*, 11, 19.

was received, but before actual transfer was accomplished, this prudent policy was thrown to the winds. Spanish administrative officials connived with American speculators in the perpetration of land frauds by back-dating a large number of blank petitions for grants on which were later filled in the authorizations, amounting in all to hundreds of thousands of acres. Land speculators also bought for small sums large areas from the unsophisticated French settlers. Under American control the earlier French grants were validated with little hesitation, but the fraudulent grants of the period following the Cession were the subject of continued controversy for many years, requiring numerous acts of Congress and protracted litigation. The uncertainty of these Spanish claims delayed for some years the application of the American land system, and were a considerable factor in retarding settlement in the period before the War of 1812.<sup>20</sup>

At the time of the transfer to the American flag in 1804 this nucleus of settlement consisted of about 10,000 population, a tenfold increase since 1769. About half the population were French and the remainder mainly Americans, most of whom had come during the past decade. Slaves were nearly 15 per cent of the total. The French dwelt mainly in valleys scattered along the Mississippi from Little Prairie (Caruthersville) on the south to St. Charles, north of St. Louis, where they maintained a courteous, easy-going, and care-free, but thrifty mode of life, a combination of farming under the common field system, hunting, and fur trading, together with necessary handicrafts. The American settlers were disposed to their habitual dispersed type of settlement, and had to some extent occupied areas some distance from the main rivers, where they engaged in farming, herding, hunting, and fur trading. They were early attracted to the rough lands of the Ozark center, just west of the Mississippi, where they found fertile narrow valleys, clear springs, rich mineral deposits, numerous fur-bearing animals, and abundant range for stock in the relatively unforested interfluvies. Settlements, mainly of Americans, had penetrated up the Missouri as far as the present town of Washington. Under the terms of the Purchase the French settlers were confirmed in the possession of their lands, and by subsequent legislation the holdings in common were converted into individual holdings in fee simple, allodial tenure.<sup>21</sup> During the decade following the Purchase the expansion of population was not very rapid, although the population approximately doubled. In 1807 a nucleus of settlement was established in what came to be known as the Boone's Lick country, about midway between St. Louis and the present location of Kansas City, where the widening of the bottom lands and the rich loessial lands bordering them afforded an extensive area of unusual fertility and with the advantage of a supply of the indispensable salt. By 1812 there were several hundred settlers in this region. The close of the War of 1812

<sup>20</sup> For fuller details of these incidents, see *idem*, "Spanish Land Claims in Missouri," in Washington University, *Studies*, VIII, *Humanistic Series*, 168-195, 200. See also Nuttall, *Journal of Travels into the Arkansas Territory*, 107, 112.

<sup>21</sup> Switzler, *History of Missouri*, 159, 162; Emerson, "Geographical Interpretation of Missouri," in *Geographical Journal*, XLI, 131; Goodwin, "Early Explorations and Settlements of Missouri and Arkansas," in *Missouri Historical Review*, XIV, 393-396; Violette, *History of Missouri*, 35, 57-61; Viles, "Population and Extent of Settlement in Missouri before 1804," in *Missouri Historical Review*, V, 190-196, 200-209.

and the resulting clearing up of the Indian situation led to a great interest in the Missouri country. Some families came in 1815, but in the following year the movement of families bound for the Boone's Lick section of central Missouri was likened to an avalanche. People came faster than the former settlers could grow the necessary provisions, and the market thus afforded greatly increased the prosperity of the earlier settlers. Most of the new immigrants were Southerners, and many of them slaveholders. Not a few were people of education and good social connections and traditions.<sup>22</sup> Accustomed to pioneering in wooded areas and dependent on water transportation to establish a commercial economy, the newcomers did not take kindly to the more isolated prairie, but settled mainly along the principal watercourses. Nevertheless, as early as 1817 immigrants were advised to locate on the "edge of a prairie" where they could enjoy the advantage of not having to clear the land while still keeping in touch with wood and water.<sup>23</sup> By 1820 the total population was approximately 70,000, and by 1860 amounted to 1,182,012. By 1811 frontier settlements had been pushed westward along the Missouri to the present Howard county, and by 1820 had been extended up the Mississippi from St. Charles to the Iowa line, and along the Missouri to the great bend near Kansas City. There were already fully 20,000 in the Missouri River valley. The addition, in 1837, of the Platte Purchase, in the northwestern part, added a fertile strip that was rapidly occupied. The great glacial prairies north of the Missouri were not fully occupied, except in stream valleys, until the era of railway building, just before the Civil War. On the other hand, the Osage prairie, in western Missouri, just south of the Missouri river, was early occupied by settlers who pushed up the White river from Arkansas. Nevertheless, they settled largely along the streams, and avoided the prairie until about 1850. This region was fairly accessible to market by way of the Osage and Missouri rivers, and also found a market outlet in supplying the traders of the Sante Fe trail and the Indian nations in what is now Oklahoma. East of the old prairie, west of the Ozark center, and south of the occupied area near the Missouri river lies the Ozark plateau. This country settled slowly, mainly by mountaineers and other small nonslaveholding farmers from Tennessee, Kentucky, Virginia, and North Carolina. Away from navigable rivers the region was characterized by the rude, backwoods economy that prevailed in other isolated sections of the South.<sup>24</sup>

#### EARLY STAGES OF ECONOMIC DEVELOPMENT

In the early stages of development the economic and social characteristics of the various transmontane farming communities were much alike in the larger

<sup>22</sup> Extract from the Memoir of John Mason Peck, in Missouri Historical Society, *Collections*, II, No. 7, p. 24; Thomas, R. D., "Missouri Valley Settlement," in *Missouri Historical Review*, XXI, 28-36. For an analysis of sources of population, see Lynch, "Influence of Population Movements on Missouri before 1861," in *Missouri Historical Review*, XVI, 506-514.

<sup>23</sup> Extract of a letter from Fort Osage, Feb. 28, 1817, in Brown, S. R., *Western Gazetteer*, 216.

<sup>24</sup> Emerson, "Geographical Interpretation of Missouri," in *Geographical Journal*, XLI, 40-47, 131; *De Bow's Review*, XXIV, 336; Weston, G. M., *Poor Whites of the South*, 2; Switzler, *History of Missouri*, 177-182, 192, 230, 285-288; Goodwin, "Early Explorations and Settlements of Missouri and Arkansas," in *Missouri Historical Review*, XIV, 400; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 269.



details, and resembled closely pioneer life east of the Appalachians.<sup>25</sup> Frequently the men went in advance of their families in order to mow hay, plant crops, or build cabins. A prevalent form of settlement in Kentucky and Tennessee was the "station," a small group of log cabins so arranged that they formed part of an enclosure, supplemented by a stockade of stout posts. Generally the roofs of bark or puncheons were sloped inwards for greater security against fires started by flaming arrows. The number of cabins was usually from two or three to a dozen, but a few stations, such as Harrodsburg, Boonesborough, and Nashville, were large enough to provide for upwards of a hundred inhabitants. In the first few years the perils of Indian attack compelled settlers either to reside in the stations or to build their cabins near by. The little store of food brought from the older settlements was soon exhausted, except the carefully hoarded seed corn and seed potatoes. Frequently settlers were reduced in the first year or two to the necessity of utilizing the dry meat of the breast of the wild turkey as bread. Bear meat and venison were plentiful, and bear fat served for shortening. Wild honey furnished a welcome luxury, and the pioneers soon began to tap the numerous sugar maples of the region, and made good use of the abundant wild fruits and nuts. At this stage little agriculture was possible except the raising of small patches of beans, corn, pumpkins, and melons in small nearby clearings. Many of the pioneers were more inclined to hunting than to systematic farming, and the facility with which game was obtained retarded the progress of agriculture until the buffalo and deer had been virtually exterminated. The former supplied meat, wool, and hides for leather; the horns furnished materials for combs and other utensils, while the spinal sinews served as "fiddle" strings. Furs supplied the principal medium of exchange and article of export to eastern markets, and in both east and middle Tennessee there was an active fur trade with the Indians when relations permitted. The principal implements of the pioneer were the rifle, the axe, the hoe, and the sickle or scythe. Rude furniture was hewn out of logs. Cords and bridles were manufactured from hickory bark. Some of the cabins were provided with spinning wheels, and clothing was manufactured by the women out of buffalo wool, nettlebark fiber, and deerskins. For medicines the pioneers relied on numerous wild plants in the virtues of which they had confidence.<sup>26</sup>

The building of other stations still nearer the Indian settlements served as a screen which enabled the nascent communities to achieve a new stage of development. It became possible to establish single farmsteads at greater distance from the stations, to expand agricultural operations, and gradually to develop herds

<sup>25</sup> See above, pp. 438-442.

<sup>26</sup> Cuming, *Tour to the Western Country*, 156; Kilpatrick, "Journal of William Calk," in *Mississippi Valley Historical Review*, VII, 363, 365-375; extract from *Kentucky Gazette*, reprinted in *State Gazette of North Carolina* (Edenton), Apr. 16, 1789; *Kentucky Gazette* (Lexington), May 5, 1792; Stephenson, M. A., "Some Early Industries of Mercer County," in *Ky. State Hist. Soc., Register*, XIII, No. 38, p. 46; Roosevelt, *Winning of the West*, I, 316; II, 17, 99-100; Drake, *Pioneer Life in Kentucky*, 13-15, 20-23; Fleming, *Journal* (Mereness, Travels), 628, 631, 637, 640; Gorin, *Times of Long Ago*, 14, 19; Martin Schneider's report of his journey to the Upper Cherokee towns (1783-4), and Lewis Brantz's memoranda of a journey (1785), both in Williams, S. C., *Early Travels in the Tennessee Country*, 253, 285; Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 666, 675, 678. For other citations bearing on pioneer life in Missouri, see below, p. 879.

under open range conditions and to keep cows to supply milk to the household. The first crop of wheat in Kentucky was raised in 1777 on a small patch near the walls of Harrodsburg. The first gristmill was erected in 1782. Potatoes, turnips, and garden vegetables were added to the restricted resources, and hemp, flax, and cotton were planted. However, only small patches had been cleared, and extensive production was not yet possible. Much of the food supply was still obtained from the woods.<sup>27</sup> As the sense of security increased, there occurred a rapid elaboration of farming activity and diversification in community life and industry. Orchards were set out. The number of livestock were multiplied. The early pioneers had brought along horses and soon began to train race horses, and as early as 1783 a race track was formed. Salt, always a prime necessity in the backwoods, must be provided by the establishment of rude salt-works, even in the face of Indian peril; and farmers travelled long distances to the nearest salt lick to purchase this indispensable product. In a few years it was being exported to the older States. Small gristmills, sawmills, and distilleries were set up. For a number of years the media of exchange consisted largely of commodities, including furs, handwoven textiles, tobacco, whisky, and other products. By 1790 in Kentucky the barter economy was changing to a money economy, although, as in most pioneer regions, money was scarce. Here and there community life found expression in the building of a rude log church and the establishment of an equally rude school, ambitiously designated an academy or a college.<sup>28</sup> Gradually sufficient land was cleared to permit production of a considerable market surplus, and within a half century after the first settlement of the area around Lexington, Kentucky, timber had become so scarce that its conservation had become a matter of concern.<sup>29</sup>

#### TRANSPORT TO MARKETS

Thus, the settlers soon found themselves in great need of markets, a need accentuated by the fact that commercial planters with slaves were beginning to come in considerable numbers.<sup>30</sup> In east Tennessee a few small stores were set up, which imported small quantities of munitions, dry goods, kitchen ware, and other essentials by precarious and occasional trips by wagon, pack horse, and

<sup>27</sup> *Franklin Farmer*, II, 153; J. R. Curry's address on pioneer life in Harrison County, in Kentucky State Agricultural Society, *Report*, 1857, p. 409; Durrett, *Bryant's Station*, 87; Stephenson, M. A., "Some Early Industries of Mercer County," in Ky. State Hist. Soc., *Register*, XIII, No. 38, pp. 45-50; cf. Roosevelt, *Winning of the West*, II, 100, 112; Drake, *Pioneer Life in Kentucky*, 44-53, 57-70; Cotterill, *History of Pioneer Kentucky*, 234; Gorin, *Times of Long Ago*, 15.

<sup>28</sup> Stephenson, M. A., "Some Early Industries of Mercer County," in Ky. State Hist. Soc., *Register*, XIII, No. 38, p. 47; J. R. Curry's address on pioneer life in Harrison County, in Kentucky State Agricultural Society, *Report*, 1857, p. 410; Beckner, "History of the County Court of Lincoln County, Virginia," in Ky. State Hist. Soc., *Register*, XX, 189; *Kentucky Gazette* (Lexington), June 23, 1792; Jan. 4, 1794; Robertson, J. R., "Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia," in *Filson Club Publications*, No. 27, pp. 43-45; Ramsey, *Annals of Tennessee*, 281, 627; Roosevelt, *Winning of the West*, II, 99, 211-213; Sudduth, *Early Adventures in Kentucky* (History Quarterly, II), 47, 52, 55; Gorin, *Times of Long Ago*, 14-19; Fleming, *Journal* (Mereness, Travels), 620; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 78. Conditions in Tennessee were largely parallel with those in early Kentucky. See Holt, "Economic and Social Beginnings of Tennessee," in *Tennessee Historical Magazine*, VII, 200, 213-217, 267, 273; VIII, 24-28, 49.

<sup>29</sup> *Kentucky Gazette* (Lexington), Mar. 21, 1822.

<sup>30</sup> Extract of a letter from a gentleman in Boonesborough, Ky., Feb. 10, 1794, in *Maryland Journal and Baltimore Advertiser*, Mar. 12, 1794. Also reprinted in *Baltimore Daily Intelligencer*, Mar. 13, 1794.

flatboat from Pittsburgh or from Philadelphia and Baltimore, by way of the Great Valley. By 1797 flatboats of five tons burthen were carrying flour, salt, and whisky from southwestern Virginia to Knoxville. As late as 1802 most of the trade of Knoxville was with the Atlantic States, though some flour, cotton, and lime were being shipped by the long and precarious river route to New Orleans.<sup>31</sup>

At the close of the Revolution, as we have noted, Kentuckians, under the leadership of James Wilkinson, began to trade down the Mississippi to New Orleans. The first shipment of consequence was in the Spring of 1787, when Wilkinson sent a boat loaded with hams, butter, and tobacco from the vicinity of Frankfort to New Orleans. Tobacco which was worth only \$2 per hundredweight sold for 9½ Spanish dollars at New Orleans; but Wilkinson extorted an ample toll of 6 shillings per hundredweight from Louisville as a freight charge, and in addition two thirds of the profit above 15 shillings per hundredweight. Wilkinson continued to send shipments until 1791,<sup>32</sup> but other planters and merchants soon engaged in the trade, taking down flour, tobacco, and bacon in exchange for horses, slaves, and cattle. Soon rough trails from central Kentucky to the Ohio had been improved sufficiently to permit abandonment of the difficult passage of the Kentucky river. In the earlier period many of the planters from Kentucky and Tennessee accompanied their shipments to New Orleans or shipped them on consignment, but after the War of 1812 the steamboat made possible a greater frequency of communication, enabling local merchants to purchase farm products outright at much less risk than formerly.<sup>33</sup>

In 1795 and 1797 steps were taken to improve the Wilderness Road, and it continued to be an important artery of transport, not only for settlers and goods from the East, but also for shipment of products to the Eastern States. Gradually other roads were opened to the eastward across the mountain passes into the Great Valley and thence by road or river to eastern and northern markets. With the exception of livestock these highways were relatively unimportant for the exportation of farm products; but ginseng, salt, saltpetre, and various textile products of Kentucky also found their way eastward along these roads. Roads were opened to Nashville and thence to Alabama and western Georgia, along which moved livestock, baling cloth, rope, bacon, and other Kentucky products. Until the era of steamboat navigation a considerable proportion of the imports came across the mountains, although costs were excessive. The steamboat greatly facilitated exports, made New Orleans the source of a large proportion of the imports, and shifted the commercial center of gravity from Lexington to Louisville. The commercial position of the latter was strengthened by the building of turnpikes to Shippingsport and Portland.<sup>34</sup> As early as 1801 exports from

<sup>31</sup> Ramsey, *Annals of Tennessee*, 686; Roosevelt, *Winning of the West*, IV, 113, 225; Michaux, *Travels*, 221, 249.

<sup>32</sup> Verhoeff, *Kentucky River Navigation*, 55, 57-65 & nn.; *State Gazette of North Carolina* (Edenton), Mar. 26, June 18, 1789.

<sup>33</sup> Verhoeff, *Kentucky, River Navigation*, 48, 86-100.

<sup>34</sup> *Idem*, *Kentucky Mountains: Transportation and Commerce*, 74-77; Gronert, "Trade in the Blue Grass Region, 1810-1820," in *Mississippi Valley Historical Review*, V, 317; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 71, 78-80; Speed, *The Wilderness Road*, 22; *Louisville Public Advertiser* (Kentucky), Oct. 16, 1819; Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 339.

Louisville comprised 41,149 barrels of flour, 779 hogsheads of tobacco, 92,320 pounds of pork, 91,300 pounds of bacon, 10,881 pounds of lard, 2,587 pounds of butter, 1,344 pounds of cheese, 14,860 pounds of beef, 2,587 pounds of hemp, 1,036 bushels of corn, and smaller quantities of miscellaneous products.<sup>35</sup>

Before the development of steamboats middle Tennessee was especially handicapped by remoteness from markets and the indirection of trade. A series of articles written in 1810, in which the author proposed the establishment of a State system of marketing, reveals in detail the commercial disadvantages suffered by the Tennessee farmer. If he shipped his crop to New Orleans by one of the flatboats that made a business of carrying products thither for hire, he must run the risk of the boat sinking, of being swindled by those conducting the boat, or by the commission merchant at New Orleans. He must pay a commission of 3 to 5 per cent merely for the return of the cash proceeds. To carry his own products to New Orleans was out of the question except for large planters. Sometimes farmers and planters formed associations for the purpose, but these involved many difficulties. Small farmers for the most part were reduced to the necessity of selling their products locally, at a heavy discount. Cotton that sold for 14 to 15 cents a pound at New Orleans brought only 8 cents at Nashville.<sup>36</sup> The latter city early became the central market for middle Tennessee, shipping to New Orleans in large flatboats, or "broadhorns," cotton, hemp, pork, lard, bearskins, deerskins, butter, salt, whisky, hides, beeswax, and cattle. Nashville merchants, bringing Spanish currency, returned on horseback by way of Natchez, or on keel boats up the Mississippi, Ohio, and Cumberland—a journey that required four months for the round trip. For many years most of the imports for middle Tennessee were brought by wagon from Philadelphia and Baltimore to the Ohio, and thence up the Cumberland to Nashville, but after the invention of steamboats imports came up the rivers from New Orleans in little more than a week.<sup>37</sup>

Nevertheless, access to market from Kentucky, as well as from middle and east Tennessee and the interior of Missouri, continued to be subject to high costs, which were necessarily deducted from the prices paid the farmers. In 1820 corn in Kentucky was selling for only 10 cents a bushel, and wheat for 20 cents. In November, 1820, at Russellville, Kentucky, superfine flour was quoted at \$2.50 per barrel, cornmeal at 37½ to 50 cents a bushel, potatoes 37½ cents a bushel, beef \$2.25 to \$2.75 per hundred pounds, pork \$2.50 to \$3.00 per hundred, butter 16½ cents a pound, eggs 8¼ cents a dozen, and chickens \$1.00 to \$1.25 per dozen.<sup>38</sup> Even at Louisville prices were little better. In the period 1823 to 1830 inclusive average annual prices ranged by years from \$3.19 to \$5.35 per barrel for flour, 19 to 32 cents per bushel for corn, 24 to 43 cents per bushel for potatoes, 3¾ to

<sup>35</sup> Customhouse report for Louisville, reprinted in *Washington Federalist* (District of Columbia), June 8, 1801.

<sup>36</sup> These letters were published in the *Review* (Nashville), June 1 and 8, 1810. Excerpts were loaned the author through the courtesy of George Rogers Taylor.

<sup>37</sup> McMaster, *History of the United States*, III, 484-486; Guild, *Old Times in Tennessee*, 82; Melish, *Travels*, II, 153.

<sup>38</sup> *Niles' Register*, XIX, 16; *The Weekly Messenger* (Russellville, Ky.), Nov. 4, 1820.

5½ cents per pound for bacon, and 8½ to 15 cents per pound for butter.<sup>39</sup> In 1844 corn was selling in middle Tennessee at 15 cents a bushel, wheat at 50 cents, hay at \$3.00 a ton, and tobacco at 3 cents a pound.<sup>40</sup> In 1842 wheat brought but 25 cents a bushel in the western part of Missouri. In 1850 net prices received by Missouri farmers were 30 to 50 per cent below Eastern seaboard prices.<sup>41</sup>

The remoteness from market of these areas and the consequent low prices for farm products were largely responsible for an early interest in tariff protection based on the home market theory, and for a considerable development of industrial diversification, including the processing and manufacture of agricultural products. Hemp and cotton factories manufactured bagging, rope, and other textile products for the lower South. Gristmills were numerous, and distilleries made use of considerable quantities of rye and corn. By 1819 the receipts of whisky at New Orleans amounted to 200,000 gallons, and shortly afterward a single distillery at Louisville boasted a capacity of 1,500 gallons a day. A good deal of tobacco was manufactured. Salt and gunpowder were produced for domestic use and for export. Many small towns sprang up, and, in contrast with the lower South, comprised numerous artisans and small-shop operatives.<sup>42</sup> By the close of the first decade of the century Lexington had become a small manufacturing city, containing 3 nail factories, 2 copper and tin factories, 7 saddler's shops, 4 cabinetmaker's shops, 3 tanyards, 5 currying shops, 2 tobacco factories, 2 breweries, a carding plant, a manufacturer of baling cloth, 2 cotton spinning machines worked by horses, an oil mill, 7 distilleries, 4 ropewalks, and 7 brickyards, besides numerous artisans and retailers.<sup>43</sup> In commercialized farming regions there was a tendency for large plantations to manufacture their own products. About the beginning of the third decade advertisements in Nashville papers of farms for sale mention gristmills, distilleries, sawmills, and sometimes iron forges. About 1820 there were a number of large planters near Louisville who carried on distilling, coopering, shoemaking, and other trades.<sup>44</sup>

#### DEVELOPMENT OF THE SLAVERY ECONOMY

Very early in the settlement of the transmontane area certain districts, favored by good soil and located on navigable rivers, began to attract well-to-do slaveholders, particularly the Valley of Virginia, the valleys of east Tennessee, the bluegrass areas of Kentucky, the Nashville Basin, and the valleys of the Missouri and Mississippi rivers.

<sup>39</sup> From averages of price quotations available in *Louisville Public Advertiser* (Kentucky), 1823-1830, *passim*.

<sup>40</sup> *Nashville Whig*, Nov. 13, 1845.

<sup>41</sup> *Dollar Farmer*, I, 73; *Valley Farmer* (St. Louis), II, 10.

<sup>42</sup> Gronert, "Trade in the Blue Grass Region, 1810-1820," in *Mississippi Valley Historical Review*, V, 314-316; Warden, *Account of the United States*, II, 557; Ogden, *Letters from the West* (Thwaites, Early Western Travels, XIX), 40; Cuming, *Tour to the Western Country*, 472-475; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 78-80; Holt, "Economic and Social Beginnings of Tennessee," in *Tennessee Historical Magazine*, VIII, 32-42; Williams, S. C., *History of the Lost State of Franklin*, 248-250.

<sup>43</sup> Cuming, *Tour to the Western Country*, 164.

<sup>44</sup> For instances, see *Nashville Whig*, Sept. 26, 1821; Ogden, *Letters from The West* (Thwaites, Early Western Travels, XIX), 42.

A large proportion of the farmers in the Valley of Virginia were nonslaveholders. In the northern counties the percentage of slaves to total population was less than 10 in Shenandoah County and less than 15 in Frederick. The proportion of slaves was higher in the southern part of the Valley, amounting to more than a fifth in Augusta County and more than a fourth in Rockbridge; the latter county reported 851 farms in 1860 and 569 slaveholders, but undoubtedly many of them were not operating farms. The average size of holdings was about 7. There were 7 holdings each of 50 or more slaves, and 21 holdings ranging from 20 to 49 slaves. In Frederick County, representative of the northern part of the Valley, 751 farms were reported in 1860, and there were 406 slaveholders, averaging less than 6 slaves each. There was but 1 holding of 30 and under 40 slaves, and 14 ranging from 20 to 39. It is probable, however, that after the beginning of the nineteenth century the relative importance of slavery in this region had increased. Thus, in Rockingham County in 1790 slaves were only 10 per cent of the population, and in 1788 the 4 largest holders owned 12, 10, 8, and 7 respectively;<sup>45</sup> but in 1850 slaves were about 12 per cent of the population. In 1860 there were: 1 holder of 70 or more slaves, 1 of 40 and under 50, and 11 ranging from 20 to 39.<sup>46</sup>

Prior to 1783, in Kentucky, the stream of immigration was composed largely of backwoodsmen from western Pennsylvania, Maryland, and Virginia. After that time the immigration of the gentry and other citizens from the more densely peopled parts of the Colonies changed the tone and character of backwoods life. In 1788 the tax list of Fayette County showed 1,424 white tithables and 611 Negroes over twelve years of age. There were 18 holders with more than 5 taxable Negroes. The largest holder had 16 slaves, 2 had 14, and 4 others had more than 10, but the tax list for Madison County, farther south, showed only 31 slaveholding households out of a total of 190. Only 1 holding contained more than 5 slaves over sixteen years of age.<sup>47</sup> By 1796 leadership had passed into the hands of the more sophisticated newcomers, a change that occurred a few years earlier in the bluegrass region of Kentucky than in the Watauga and Cumberland settlements.<sup>48</sup> A traveller who visited Lexington and vicinity in 1797 and again in 1817 was amazed at the change in twenty years. On the first visit Lexington contained about fifty houses, partly frame and partly hewn logs, with outside chimneys. Leading citizens dwelt in log cabins and wore hunting shirts and leggings. In 1817 there were "costly brick mansions" with fine lawns, three-story brick stores, and several good hotels. In the vicinity were many fine country places.<sup>49</sup> About 1818 a traveller noted in the vicinity of Louisville a number of "noble plantations." Some of the planters sowed 500 acres of wheat, "set twenty plows a-going in one field," kept 60 horses and several hundred Negroes.<sup>50</sup> By 1790 there were 12,430 slaves in Kentucky, most of them in

<sup>45</sup> Wayland, *Rockingham County, Virginia*, 107.

<sup>46</sup> *United States Census*, 1850, p. 257; *ibid.*, 1860, *Agriculture*, 244. For discussion and illustrations of this tendency, see Wayland, *Rockingham County, Virginia*, 113.

<sup>47</sup> Kentucky State Historical Society, *Register*, XIX, No. 57, pp. 67-78; XX, No. 60, pp. 297-299.

<sup>48</sup> Roosevelt, *Winning of the West*, I, 314 & n., 335-337; III, 22-24; IV, 227-229.

<sup>49</sup> Brown, S. R., *Western Gazetteer*, 91-95.

<sup>50</sup> Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 219.

the bluegrass region, which continued to have the largest percentage of slaves to total population. In Bourbon, Fayette, and Woodford counties, considered as a group, slaves were 46.5 per cent of the population in 1860. In the dark tobacco region of southern Kentucky slaves were 36.6 per cent in 1860.<sup>51</sup>

In 1794 there were more slave polls than white polls in Davidson County, Tennessee. Two years later the population comprised 2,621 free persons and 992 slaves.<sup>52</sup> In the counties of the Nashville Basin, together with adjacent counties of the northern border,<sup>53</sup> slaves were from 30 to 50 per cent of the population in 1860. Successive census enumerations show that there was a steady increase in the percentage of slave population from 1790 to 1860 in the counties of middle Tennessee devoted largely to cotton or tobacco.<sup>54</sup> On the other hand, in the counties in which general farming predominated, the percentage of slave population increased up to 1840, and thereafter remained practically constant.<sup>55</sup> In 1860 the concentration of slave ownership was greater in the cotton and tobacco producing areas of west Tennessee than in middle Tennessee. In west Tennessee the six counties of the extreme southwestern portion contained the largest percentages of slave population.<sup>56</sup> This was essentially a cotton plantation region, resembling more closely the alluvial plantation regions of Mississippi and Louisiana than the agricultural economy of the remainder of Tennessee. The poorer lands or more isolated sections were occupied by small cotton planters or backwoods farmers. In east Tennessee some slaves were owned by the valley farmers and employed as farm hands, artisans, and household servants. In the eight principal slaveholding counties slaves comprised 10.9 per cent of the population in 1860. The proportion had increased but little since 1790, when it was 8.6 per cent.<sup>57</sup>

In middle Tennessee and the bluegrass region of Kentucky there were a few slaveholdings that would have been considered large in the Cotton Belt. The prevalence of the pasture economy, however, required a comparatively small number of slaves in proportion to land area. There were many planters with only 10 to 25 slaves whose wealth, income, and general standing would have ranked them equal to the larger slaveholders of the lower South. Extremes of wealth and poverty were greater than among the Valley farmers. Nevertheless, even in the Inner Bluegrass area of Kentucky and the Nashville Basin, there were thousands of small, middle-class farmers, many of whom owned no slaves. The occupational color line was more closely drawn than among the Valley farmers, and the proslavery sentiment was stronger, but discipline was less rigid

<sup>51</sup> *United States Census, 1860, Population.*

<sup>52</sup> Putnam, *History of Middle Tennessee*, 463, 531.

<sup>53</sup> The counties in this well-defined region were Davidson, Wilson, Sumner, Smith, Rutherford, Williamson, Maury, Bedford, Marshall, Giles, and Lincoln. Robertson and Montgomery, in the tobacco producing region north of the Basin, may be regarded as a part of this area of slave population.

<sup>54</sup> This assertion is made of Giles, Maury, and Rutherford, considered as a group, and of Williamson and Montgomery.

<sup>55</sup> This assertion refers to Davidson, Sumner, and Wilson counties, considered as a group.

<sup>56</sup> Shelby, Fayette, Hardeman, Tipton, Haywood, Madison.

<sup>57</sup> Greene, Hamilton, Hawkins, Jefferson, Cocke, Knox, McMinn, Roane.

and severe than in the lower South, and there was a closer association of master and slave.<sup>58</sup>

When the tide of slaveholders, yeomen, and advance guard of the Germans began to pour into Missouri they found the best lands of the river valleys occupied by native Americans of the roving, squatter type, who subsisted in squalid fashion by a combination of hunting and farming. On the first approach of the new streams of population these folk were ready to move on, selling their small improvements, rarely consisting of more than a log cabin and shed and a few acres of clearing, for a few dollars to the new comers.<sup>59</sup> In Missouri slave population was almost entirely along the Mississippi and Missouri rivers, and a little distance inland in the triangle formed by their junction. In these groups of counties the percentage of slave population ranged from 20 to 30 in 1860, and reached a maximum in 1850. In general the slavery economy resembled that of the Kentucky Blue Grass, except for minor contrasts due to shorter period of development. In addition to the large planter-farmers, with numerous slaves, extensive bluegrass farms, and blooded stock, there were numerous farmers even in the river valleys with either no slaves or only a few, and some wealthy farmers who refused to own slaves. Nevertheless, slave ownership carried prestige, and it was noted that ownership of as many as a half dozen entitled the owner to the sobriquet of "Colonel." Slavery began to decrease in relative importance after the main river valleys were occupied and exploited, and particularly as the great prairie sections of north Missouri filled up with small nonslaveholding farmers from States north of the Ohio and immigrants from Germany and Ireland. After 1820 there was a decline each decade in the percentage of increase of slave population, and in each of the last two decades of the period the absolute increase of slaves was less than in the decade 1830-1840. As Trexler has observed, however, the relative decline of slavery is no proof that it was unprofitable in the areas to which it was adapted.<sup>60</sup>

The map of slave population in 1860 (p. 655) shows that in the three States, Tennessee, Kentucky, and Missouri, there were large areas where slaves were an inconsiderable part of the total population. With the exception of the valleys of east Tennessee, slaves were scarcely 6 per cent in all the great area east of the Highland Rim in Kentucky and Tennessee, comprising approximately one fourth of the two States. There was no sharp occupational barrier between the races, and frequently men and women of both races worked side by side. In the earlier years there was little sentiment in east Tennessee either for or against slavery, except among the Methodists, Quakers, and Covenanters, but there was a gradual

<sup>58</sup> Melish, *Travels*, II, 179, 181, 183, 187-189; Fearon, *Sketches of America*, 239-241; Buckingham, *Eastern and Western States*, III, 7; Olmsted, F. L., *Journey through Texas*, 10-20.

<sup>59</sup> Bell, "Pioneer Life in Callaway County," in *Missouri Historical Review*, XXI, 158-160; Bek, "Followers of Duden," in *Missouri Historical Review*, XIV, 227; XV, 534-536, 663; XVI, 291-296, 375, 526-528.

<sup>60</sup> United States, *Century of Population Growth*, 133; *United States Census*, 1810-1850; 1860, *Population*, 616-621; Trexler, *Slavery in Missouri*, 54-56; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 393, 417-419; Ashton, *History of Shorthorns in Missouri* (Mo., State Bd. of Agric., *Monthly Bulletin*, XXI, No. 11), pp. 48-86; Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 662, 666.



emigration of the members of the sects opposed to slavery to the north and northwest, probably due in part to the depressing economic effect of slavery on thousands of small farmers. Before the Civil War there had developed an active hostility to the institution among many of the mountaineers, and a considerable number of branch abolitionist societies sprang up.<sup>61</sup>

In a group of eleven counties in Tennessee between the western edge of the Nashville Basin and the divide separating the Mississippi from the Tennessee river, there were less than 14,000 slaves.<sup>62</sup> There were many counties in Kentucky outside of the mountains where slaves were few. In the counties along the Ohio river, from the mouth to the location of Covington, the percentage of slaves varied from 20 to 35, but east of Covington the percentage was generally less than 10. In most of the counties of central and south central Kentucky, outside of the principal tobacco-producing area, the percentage of slaves varied from 10 to 20. In Missouri, south of the counties bordering the Missouri river and west of the counties bordering the Mississippi, comprising nearly half of the State, there were less than 10,000 slaves. There were only a few thousand in the counties north of the tier of counties bordering the Missouri river, and west of a line drawn from Keokuk, Iowa, to Jefferson City, Missouri. Slaves were about 10 per cent of the population in an area of northern and western Arkansas comprising nearly half the State.<sup>63</sup>

In the early fifties, the agricultural economy of the border States began to feel the effect of the improved prices of cotton in the lower South through an increased demand for slaves and higher prices of slaves. In 1849 it was estimated that the \$61,000,000 invested in slave property in Kentucky did not earn an average net return of 3 per cent.<sup>64</sup> This increased demand also coincided with a scarcity of white labor due to the rush to California. In 1855 the opinion was expressed that the growers of grain, tobacco, and hemp would not be able to resist the demand of the lower South for able-bodied slaves.<sup>65</sup>

#### CHARACTERISTICS OF THE VARIOUS REGIONS WEST OF THE BLUE RIDGE

From the period of the opening of regular trade routes occurs the beginning of a marked differentiation in the economic life of various communities in the border States on the western side of the Blue Ridge. These contrasts for selected areas are suggested in Table 33.

Many of the early settlers of Kentucky who came from eastern Virginia and Maryland naturally first turned to tobacco as a market product, especially during the period of stump farming.<sup>66</sup> Many others, however, came from Pennsylvania

<sup>61</sup> Humes, *Loyal Mountaineers of Tennessee*, 31-33; Baldwin, *Flush Times of Alabama and Mississippi*, 49; Temple, *East Tennessee and the Civil War*, 85-97; Waddell, *Annals of Augusta County*, 245; Dew, *Review of the Debate of the Virginia Legislature of 1831 and 1832*, p. 132; cf. letter of J. Watkins to Nathaniel Massie, reprinted in *William and Mary College Quarterly*, XIV, 94.

<sup>62</sup> Lawrence, Wayne, Hardin, Lewis, Perry, Decatur, McNairy, Hickman, Humphreys, Dickson, Benton, Houston.

<sup>63</sup> *United States Census, 1860, Population*.

<sup>64</sup> McDougale, *Slavery in Kentucky*, 26.

<sup>65</sup> Bates, *Report of the Proceedings of the Third Annual Fair of the Missouri State Agricultural Society*, Oct. 1-5, 1855, p. 11; *Western Journal and Civilian*, V, 214.

<sup>66</sup> See above, p. 754.

and New Jersey, and from the grain growing sections of the Great Valley, bringing with them their distinctive types of farming. These immigrants helped greatly to make Kentucky a region of diversified farming.<sup>67</sup> They emphasized grain and livestock as market products, though a crop or two of tobacco was considered desirable to remove the excess fertility and fit the land for wheat. As early as 1800 it was said that if the Kentuckians were sure of a market at New Orleans, they could ship 100,000 barrels of high quality flour, although the Hessian fly had invaded the country several years earlier and had worked havoc with the wheat crops.<sup>68</sup>

During the third decade of the century important changes began to take place in the agriculture of the bluegrass areas of Kentucky, changes which were accentu-

TABLE 33.—*Number of livestock per capita and production per capita of farm products in selected groups of counties of various farming regions west of the Blue Ridge, 1850<sup>1</sup>*

Regions	Horses, asses, and mules	Cattle	Sheep	Swine	Wheat	Rye and oats	Corn	Potatoes	Butter and cheese	Hay	Flax	Hemp	Tobacco	Wool
	no.	no.	no.	no.	bus.	bus.	bus.	bus.	lbs.	tons	lbs.	tons	lbs.	lbs.
Valley of Virginia. ....	.28	.81	.60	1.32	19.76	9.63	21.37	1.07	11.75	.60	.51	..	1.19	1.92
Valley of east Tennessee. ....	.33	.69	.86	2.69	2.89	12.69	49.41	3.41	9.60	.16	.83	(a)	.56	1.40
Middle Tennessee. ....	.44	.69	.90	3.61	1.30	7.69	65.26	3.85	8.77	.09	.05	(a)	17.82	1.55
Kentucky Blue Grass region. ....	.61	.89	1.24	2.19	4.08	10.29	82.66	2.31	11.87	.18	.37	.14	.05	4.02
Missouri River counties. ....	.53	1.27	1.53	2.66	5.39	8.36	65.46	2.17	12.46	.29	.96	.07	81.56	3.26
Virginia mountains. ....	.33	1.90	1.84	1.63	4.08	12.45	26.97	1.11	14.04	.54	3.20	(a)	.94	3.83
Kentucky mountains. ....	.24	1.25	1.30	2.74	.27	2.89	39.07	2.72	9.96	.05	1.68	(a)	.50	2.28
Cumberland plateau. ....	.31	1.10	.88	4.18	.67	6.37	42.16	4.23	9.08	.07	1.87	(a)	1.68	1.55
Missouri Ozarks. ....	.46	1.63	.99	3.00	2.62	6.02	58.12	2.88	13.82	.03	.76	..	2.11	2.06
Northwest Georgia. ....	.25	.83	.56	2.45	1.26	4.42	41.89	6.14	6.62	.01	(a)	..	.49	.95

<sup>1</sup> *United States Census, 1850.*

The counties in each region are as follows: Valley of Virginia—Augusta, Page, Rockbridge, Rockingham; Valley of east Tennessee—Greene, Hawkins, Hamilton, Jefferson, Knox, McMinn, Roane; Middle Tennessee—Giles, Lincoln, Maury, Rutherford, Williamson, Wilson; Kentucky Blue Grass—Bourbon, Fayette, Woodford; Missouri River counties—Boone, Callaway, Chariton, Clay, Cooper, Howard, Lafayette, Saline; Virginia mountains—Alleghany, Bath, Giles, Highland, Russell; Kentucky mountains—Breathitt, Floyd, Harlan, Perry, Pike; Cumberland plateau—Campbell, Fentress, Grundy, Morgan, Scott; Missouri Ozarks—Barry, Ozark, Taney, Texas; Northwest Georgia—Chattooga, Dade, Gordon, Murray.

(a) Amounts too small to equal .01 per cent.

ated during the following decade. Tobacco cultivation had been enormously stimulated by the high prices beginning in 1815 and continuing until 1819. Kentucky experienced a frenzy of financial and land speculation followed by a disastrous collapse.<sup>69</sup> The low prices from 1820 to 1833 caused many to abandon the crop. During the short period of good prices from 1834 to 1841 (excepting 1837) some farmers returned to tobacco growing, but many had become firmly

<sup>67</sup> *Franklin Farmer*, II, 154.

<sup>68</sup> Faux, *Memorable Days in America* (Thwaites, *Early Western Travels*), XI, 187; XII, 14; *Federal Gazette and Baltimore Daily Advertiser*, Jan. 29, 1800; *Guardian of Freedom* (Frankfort, Ky.), June 19, 1798.

<sup>69</sup> See above, p. 766.

established in other types of farming; in fact, the short interval of good prices for tobacco was followed by nearly a decade of low prices.<sup>70</sup> In the bluegrass counties hemp production had largely increased, probably stimulated by the unusually high prices of hemp from 1826 to 1828 inclusive.<sup>71</sup> Wheat was still grown for export, but in 1840 Adam Beatty declared that wheat production in Kentucky was suffering from competition of the cheaper lands in the newer States to the north and west. He believed Kentucky farmers should confine production to the amount necessary for home consumption.<sup>72</sup>

Parallel with the shift to hemp as an export crop was the even greater shift toward the so-called grazing system and the production of highbred stock for sale to the South and the newly developing regions of the West and Northwest. From an early period Kentucky was an important livestock producing State. About the beginning of the nineteenth century a traveller noted the large droves of horses being sent to the Southeast and to the New Orleans market. The State had already acquired a widespread reputation for its fine breeds of saddle and carriage horses, derived from the best Virginia strains. Large droves of cattle were sent to the Potomac to be fattened by graziers for the markets of Baltimore and Philadelphia. Butter was shipped to the West Indies. After the Creek War in 1814 an extensive trade in livestock was opened with central Alabama and western Georgia. The new development involved a radical change in type of farming. The remaining woodlands were sown to bluegrass, and the crop land, the productiveness of which had been greatly reduced, was subjected to a rotation system of corn, rye, and clover. There was a systematic improvement of breeds, already described. This system required large farms. For instance, about 1840 Colonel Clay, of Fayette County, operated an estate of upwards of 6,000 acres, mostly pasture, and his sales of cattle during 1839 amounted to about \$30,000. There resulted a notable tendency to consolidation of smaller farms, and there is evidence that it was brought about by a distinct class of farmers. In 1840 it was declared, "A grazier of good judgment and active energy is sure to buy out all his surrounding neighbors who do not practise the same system of husbandry. Even the stiff, full-handed hemp raisers have been known to yield their lands to the graziers."<sup>73</sup> By 1835 the change was so complete in Bourbon County, in the heart of the bluegrass region, that tobacco and wheat were not listed in the exports from the county, which included 10,000 head of fat cattle, 40,000 fat hogs, 3,000 horses and mules, whisky valued at \$70,000, bacon and lard worth \$50,000, and various manufactured hemp products.<sup>74</sup> In 1850 the per capita production of wheat was less than one fourth that of the Valley of Virginia, though the Kentucky region ranked highest of all the important

<sup>70</sup> Collins, L., *Historical Sketches of Kentucky*, I, 39, 42, 44; Verhoeff, *Kentucky River Navigation*, 101 n. B. See above, p. 768.

<sup>71</sup> *Franklin Farmer*, II, 187. See above, p. 821.

<sup>72</sup> *Essays on Practical Agriculture*, 127; *Franklin Farmer*, II, 187.

<sup>73</sup> Michaux, *Travels*, 187-191; Beatty, *Essays on Practical Agriculture*, 127-144; *Franklin Farmer*, III, 279, 289; *Farmers' Register*, VIII, 40-42, 314-318; IX, 56; Parr, "Kentucky's Overland Trade with the Ante-Bellum South," in *History Quarterly*, II, 74; Swem, *Letters on the Condition of Kentucky in 1825*, p. 72. For details on methods of livestock husbandry in Kentucky, see above, Chap. XXXV.

<sup>74</sup> *Kentucky Gazette* (Lexington), Mar. 14, 1835.

Southern general farming regions west of the mountains in production of corn per capita. (Table 33.) In the sixth decade there was probably some return to tobacco and wheat, as a result of the high prices of those products and the influence of railway building; and there was another movement away from hemp, probably on account of unsatisfactory prices. As already noted, the overland trade in livestock also decreased somewhat.<sup>75</sup>

The agricultural development of the Nashville Basin resembled that of the bluegrass region of Kentucky, though with certain exceptions. Corn was the pioneer crop of the region, and as the luxuriant forests were cleared, enormous crops, ranging from 50 to 100 bushels per acre, were obtained. Some tobacco was grown almost from the beginning of settlement, though mainly for domestic use. About the beginning of the nineteenth century cotton became a staple crop. By 1802 it was the principal export product, being marketed at New Orleans or hauled by wagon to Kentucky for sale for household use.<sup>76</sup> In 1816 the exports from the portion of Tennessee west of the mountains comprised 10,000 hogsheads of tobacco and 1,500 bales of cotton. During the next decade and a half, as a result of the stimulating prices and the development of steamboat navigation, the production of cotton increased nearly a hundredfold.<sup>77</sup> Apparently, as in Kentucky, tobacco growers had been discouraged by the decade of low prices following 1823, for in 1833 only 4,000 hogsheads were reported. The high prices from 1834 to 1841 temporarily stimulated tobacco production. During the early decades of the nineteenth century hemp also became an important staple. It was long considered that the region was not well adapted to the cultivation of wheat. But little wheat was produced for export prior to the last decade before the Civil War, and some of the domestic supply was imported. A considerable amount of corn and livestock and livestock products continued to be exported, valued in 1833 at \$1,020,000.<sup>78</sup> About 1840 it began to be noted that the Nashville Basin was following in the footsteps of the bluegrass region of Kentucky in substituting the grazing economy for the production of cotton and tobacco. A few leaders, such as Bishop Pope and Mark Cockrill, had begun the system some years before, but the movement gained its greatest momentum in the fifth decade, under the stimulus of soil exhaustion and low prices for cotton and tobacco. Cotton growing largely disappeared in the northern part of the Basin, and continued in the southern part in diminished volume. Clover, timothy, and rye were introduced into the crop system, bluegrass pastures were established, and purebred stock imported from Kentucky and from Europe.<sup>79</sup>

Although probably the majority of American settlers who came to Missouri

<sup>75</sup> See above, p. 841.

<sup>76</sup> *Agriculturist*, I, 19; Michaux, *Travels*, 200, 240. See above, p. 687.

<sup>77</sup> *Niles' Register*, XIII, 176. See below, p. 892.

<sup>78</sup> Tennessee, *House Journal*, 1833, p. 356; *Agriculturist*, I, 19-20; II, 42; *Tennessee Farmer*, I, 194. See above, p. 816.

<sup>79</sup> *Agriculturist*, I, 19; II, 4, 41, 62, 187, 214, 246; III, 40-43; *Farmers' Register*, VIII, 592; Killebrew, *Resources of Tennessee*, 832. For a more detailed picture of the economy of the region, see the descriptions of particular farms, in Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, pp. 44-47, 163-167; Commander Maury's address at the sixth annual State fair, Oct. 11, 1859, in *idem*, *Third Biennial Report*, 1858-1859, p. 16.

before 1815 maintained a primitive backwoods economy and many had no ambitions beyond that stage, a large proportion of the State was potentially accessible to market by means of the two great rivers and their important tributaries. In 1817 the first steamboat landed at St. Louis, and two years later another made the trip up the Missouri as far as Franklin and Chariton. From that time forward steamboats rapidly replaced the arks and flatboats of the earlier years, and by 1850 the annual steamboat arrivals at St. Louis numbered 2,899, while numerous boats plied the Missouri to Independence and other points on the western border of the State. Interest in railways developed in the thirties, but little progress was made in actual construction until a few years preceding the Civil War. Although the bulk of the State's exports had to make the long trip to New Orleans, there gradually developed a considerable home market. St. Louis became the central market for virtually all the extensive fur trade of the great West and, together with other towns of the State, enjoyed the business of outfitting the traders. The Santa Fe traders also created a considerable market for supplies and brought back large quantities of specie which proved of material aid in facilitating the transition of Missouri agriculture to a commercial basis. The mines of southeastern Missouri afforded a considerable domestic market, and before the close of the period the development of mining in southwestern Missouri was also materially influencing economic life in that section. Along the great river highways large merchant mills were in time established to manufacture flour for the extensive trade to New Orleans, and packing plants to prepare the large shipments of barrelled pork and beef, hams and bacon. In short, within little more than two decades after the close of the War of 1812 the valleys of the two great rivers and even those of their major tributaries were well on their way in the development of commercial agriculture.<sup>80</sup> Tobacco, one of the early commercial products, was raised on a commercial scale only along the two great rivers, and in large quantities only in a few counties, notably Howard, Chariton, and Randolph. Even in these regions of heavy production small farms with a few slaves predominated, and tobacco was associated with general farm crops. Its importance greatly diminished during the severe price depression from 1840 to 1850, and during this time there was a tendency for tobacco planters to substitute hemp as the market crop. The tobacco industry revived notably, however, in the last decade of the period. The regions outside of the river valleys, and to a large extent the valleys also, were devoted mainly to the production of grain and livestock.<sup>81</sup> By 1835 the older settled portions of the State were beginning to abandon the practice of continuous cropping for export and dependence on prairie pasture and hay, and were introducing clover and timothy into the rotation system. As already noted, the better class of farmers

<sup>80</sup> White, E. J., "A Century of Transportation in Missouri," in *Missouri Historical Review*, XV, 127-137, 141, 144-152; Emerson, "Geographical Interpretation of Missouri," in *Geographical Journal*, XLI, 141; *Missouri in 1822* (*Missouri Historical Review*, XVI), 337; Violette, *History of Missouri*, 95, 232, 238; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 42; Viles, "Missouri in 1820," in *Missouri Historical Review*, XV, 40.

<sup>81</sup> *Loc. cit.*; United States, Patent Office, *Annual Reports*, 1848, p. 146; *Agriculture*, 1851, p. 450; 1853, p. 206; 1854, p. 186; *De Bow's Review*, II, 49; *Valley Farmer* (St. Louis), V, 75. See above, pp. 755, 757.

of north Missouri, especially those in the large river valleys, followed the lead of the Kentucky and Tennessee bluegrass regions in the introduction of improved livestock and systematic livestock breeding. As late as 1850, however, it was declared that the farmers of Lafayette County, on the Missouri river, were still so wedded to hemp cultivation that they were compelled to import grain and meat from Johnson, Cass, and Ray counties. They had made but little progress in improving breeds of stock.<sup>82</sup>

In spite of these commercial developments the picture of Missouri agriculture in the ante bellum period is mainly that of a pioneer economy or of a commercial economy just emerging from the pioneer stage and still bearing some of its earmarks. Progress of settlement up the valleys of the principal rivers resulted in a succession of frontiers, where the yeomen who followed the nomadic frontiersmen combined herding on the open range with the cultivation of small areas of crops, and contented themselves with log cabins until they could clear away the forest, while the womenfolk exercised the usual frontier skill in textile manufactures from the wool, cotton, flax, and indigo raised for domestic use. Before the end of the period, however, in the commercially accessible areas that had been occupied sufficiently long, comfortable frame and brick houses replaced the log cabins, store-bought goods supplemented domestic manufactures, ample orchards added to the comforts of life, and well-bred livestock and systematic animal husbandry were substituted for herding on the open range. As in most newly settled regions, interest rates and wage rates were high, land values were continually increasing, and land speculation was a large element in economic life.<sup>83</sup>

Before the Civil War the eastern and southern sections of Arkansas were occupied by large cotton planters in the accessible alluvial sections, and by small cotton farmers in the uplands. Northern Arkansas was mainly a region of general farming. The more fertile and accessible areas had passed beyond the pioneer state of development and had begun to raise large quantities of wheat on the virgin soils, which was ground into flour in numerous flour mills equipped with improved machinery. Flour and large quantities of stock were shipped to market, improved grain harvesting machinery was being introduced, and large orchards planted, and one of the largest nurseries in the United States was projected. There was still much good cheap land, which was being rapidly settled.<sup>84</sup> The Ozark section, both in Arkansas and in Missouri, was a sparsely settled area of backwoods farmers, differing little from corresponding areas in the Appalachians, from which many of them had come. Like the Appalachian mountaineers, they retained their primitive mode of life until recent times.<sup>85</sup>

In the great region of Appalachia there were two types of agricultural economy

<sup>82</sup> Warden, *Account of the United States*, III, 149; *Farmer and Gardener*, II, 146; *Valley Farmer* (St. Louis), V, 220. See above, p. 856.

<sup>83</sup> Bek, "Followers of Duden," in *Missouri Historical Review*, XV, 673-675, 683; XVI, 305, 345; *Missouri in 1822* (Missouri Historical Review, XVI), 337, 341; Britton, "Pioneer Life in Southwest Missouri," in *Missouri Historical Review*, XVI, 56, 63, 76-80, 263, 269, 271-277; Thomas, R. D., "Missouri Valley Settlement," in *Missouri Historical Review*, XXI, 37.

<sup>84</sup> United States Agricultural Society, *Journal*, VIII, 177.

<sup>85</sup> Browne, W. A., "Some Frontier Conditions in the Hilly Portions of the Ozarks," in *Journal of Geography*, XXVIII, 181-188.

—valley farming and mountain farming.<sup>86</sup> In spite of the uniformity in general character and manner of life of the people engaged in each of the two great types, already described,<sup>87</sup> there were certain contrasts in the agricultural industry of different districts.

The Great Valley in Virginia and western Maryland was Eastern rather than Western in historical development and commercial drainage. Furthermore, as already noted, its agricultural organization and practices were derived largely from Pennsylvania.<sup>88</sup> The economy of the Valley was intimately associated with the hilly portions of Appalachia, and it was also the source of a large proportion of the population and the agricultural practices of the border States west of the mountains.<sup>89</sup> In the northern part of the Valley the growing of tobacco was generally superseded during the last decade of the eighteenth century by the cultivation of wheat and the clover and plaster husbandry. The southern section, less accessible to market, was more dependent on tobacco as a commercial crop.<sup>90</sup> By 1850 wheat had become the principal market crop of this part of the Valley also, and the per capita production of the Valley as a whole was much higher than in any other important section of the South, except in the northern counties of the Virginia Piedmont. During the following decade, however, as a result of improved prices of tobacco, there was an extensive return to its production in the southern part of the Valley, notably in Botetourt, Rockbridge, and even in Rockingham. During the same decade there was a decrease in the quantity of wheat reported for the northern counties, and a large increase of corn. Southwestern Virginia, still more remote from market centers, found the growing of cattle on its bluegrass pastures the most feasible line of commercial production, and this continued to be the dominant feature of the economy of this area. Mention has already been made of the importance of the Valley in the preparation for market of cattle purchased from the mountains. Hogs and sheep were raised mainly for local consumption. Clover, bluegrass, and corn were the basis of livestock husbandry. The better farmers used plaster and lime in connection with clover, but even in the later decades there were a good many who were using neither lime nor clover, and a tendency to soil exhaustion was observed. Oats were grown for home use, and rye and buckwheat by the farmers of German origin.<sup>91</sup>

The remoteness of the region from market was responsible for a large measure of self-sufficiency. A student of the Valley's history declares that as late as the middle of the nineteenth century "it was only the people of aristocratic taste who wore clothing of imported cloth."<sup>92</sup> The construction of the James River canal system furnished an improved highway from the southern part of the Valley

<sup>86</sup> See Chap. XXI. Cf. Temple, *East Tennessee and the Civil War*, 62-72.

<sup>87</sup> See Chap. XXI.

<sup>88</sup> See p. 122.

<sup>89</sup> Turner, F. J., "Old West," in Wis. State Hist. Soc., *Proceedings*, 1908, p. 212.

<sup>90</sup> Kercheval, *Valley of Virginia*, 137.

<sup>91</sup> *Farmers' Register*, I, 631; III, 29; X, 92; *Valley Farmer* (Winchester, Va.), II, 11; *Southern Planter*, XX, 439; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 45, 48; Olmsted, F. L., *Journey in the Back Country*, 273.

<sup>92</sup> Morton, O. F., *Rockbridge County, Virginia*, 107. On conditions of the earlier period, cf. Wayland, *German Element of the Shenandoah Valley of Virginia*, 190-201.

to Richmond, and about 1855 the building of the railway from Richmond to Staunton, which met the canal at Covington, improved still further the communications of this region.<sup>93</sup> The northern part of the Valley early benefited by the construction of the Chesapeake and Ohio Canal, and during the thirties this was supplemented by the completion of the Baltimore and Ohio Railway to Harper's Ferry.<sup>94</sup>

The several elements that settled the Valley presented striking contrasts. There were a good many slaveholders, some with considerable numbers of slaves, who maintained the general standards of living and the traditions of social standing and dignity of their ancestors in eastern Virginia. They built large brick houses, maintained numerous house servants, prided themselves on their family plate and fine horses, and educated their children in accordance with the best classical standards. Nevertheless, their farm economy was not always the most efficient in the Valley. Travellers asserted that counties like Tyler, Mason, Brooke, and Cabell, where slaves were few, were more prosperous than the regions where they were numerous; land values were generally higher, and there were more schools, churches, roads, bridges, fences, houses, and stables.<sup>95</sup> About 1845 a writer declared:<sup>96</sup>

"We are well aware that the most profitable farming in this country is conducted by the least informed portion of the community; probably the most thrifty farmers in America are to be found amongst the Dutch of Pennsylvania and the Valley of Virginia. . . . They get rich, not in consequence of their ignorance, but in despite of it. Education is not all that the farmer requires; he must possess industry and economy."

About ten years earlier another writer, speaking of the prevalent tendency to soil exhaustion in the Valley due to extravagant overcropping, remarked significantly, "This practice will be corrected by the division of property."<sup>97</sup>

East Tennessee was more remote from the general market than the more favorably located portions of the Valley of Virginia. Some goods were exported to the Eastern States in wagons, and a large proportion of imports continued to come by wagon from Philadelphia. After connection by water with New Orleans was established, arks and flatboats bore corn, potatoes, whisky, bacon, cider, apples, hemp, tobacco, beef, butter, cheese, beeswax, lard, feathers, and cornmeal to the markets of northern Alabama and the lower Mississippi region. Iron castings and nails were exported in small quantities. The economic life of the valley farmers was similar to that in the Valley of Virginia—comfortable but not luxurious. Homes were neater and more attractive than those of persons of equal wealth in the Cotton Belt. Most of the farmers received but little money, but their tables were bountifully spread with an abundant and varied menu, mostly raised on the farm. Farmers also raised tobacco, cotton, flax,

<sup>93</sup> *De Bow's Review*, XVIII, 59.

<sup>94</sup> *Farmers' Register*, III, 30.

<sup>95</sup> Olmsted, F. L., *Cotton Kingdom*, I, 114; Featherstonhaugh, *Excursion through the Slave States*, I, 16; Buckingham, *Slave States of America*, II, 353.

<sup>96</sup> *Southern Planter*, V, 234.

<sup>97</sup> *Farmers' Register*, II, 390.



and hemp for home consumption. There were considerable household manufactures, and, in the latter part of the ante bellum period, a number of small cotton-spinning factories, two or three paper mills, a tool factory, and a number of small iron factories, besides numerous flour mills, gristmills, sawmills, and brick-yards. From an early period cattle and hogs, driven by thousands to the markets of the Carolinas and Georgia, were the principal form of exports. Moreover, east Tennessee was a half-way point for Kentucky drovers passing through Cumberland Gap on their way to the Southeastern markets, and thousands of Kentucky cattle and hogs were fattened for market on the farms of east Tennessee.<sup>98</sup> In 1850 wheat was much less important in the valleys of east Tennessee than in the Valley of Virginia. (Table 33.) On the other hand, the valley farmers of east Tennessee produced more than twice as much corn per capita as was produced in the Valley of Virginia, a third more rye and oats per capita, and more than three times as many potatoes per capita. In east Tennessee there were also slightly more horses, asses, and mules per capita, considerably more sheep, nearly as many cattle, and more than twice as many hogs, as in the Valley of Virginia.

The roundabout and costly route to the New Orleans market was somewhat improved by the completion in 1834 of the Tuscumbia and Decatur Railway around Muscle Shoals.<sup>99</sup> Toward the close of the period the building of the East Tennessee and Georgia Railroad to Knoxville, supplying transport facilities to the Atlantic ports, and of the Nashville and Chattanooga road, connecting the region with middle Tennessee and the West, was the initial cause of marked changes that were taking place in the fifties. Wheat became a more important staple crop, and by 1858 east Tennessee wheat commanded a premium on the New York market. Land increased rapidly in value, and there was a marked tendency toward better farming, made necessary by the rapid progress of soil exhaustion. In the last decade before the war there were many fine meadows and large barns, and the native stock were being steadily bettered by the importation of improved breeds.<sup>100</sup>

The movement of population from Pennsylvania southward along the back parts of the seaboard slave States, begun during the colonial period, seems to have continued. The movement was described in 1842 as follows:<sup>101</sup>

"The Eastern Pennsylvanians, where improved Farms are worth from a hundred to a hundred and fifty dollars per acre, and even a hundred miles West of Philadelphia on the Harrisburgh route, from a hundred to a hundred and twenty dollars per acre, sell out to wealthy Merchants and others; they again, buy out the Western Pennsylvanian; he buys out the Eastern Virginian; the Eastern Virginian buys out the Western; and

<sup>98</sup> Michaux, *Travels*, 247; Royall, *Sketches of History, Life and Manners in the United States*, 27; Buckingham, *Slave States of America*, II, 253; United States, Patent Office, *Annual Report*, 1848, p. 522; Smith, J. G., *East Tennessee*, 18.

<sup>99</sup> Cotterill, "Beginnings of Railroads in the Southwest," in *Mississippi Valley Historical Review*, VIII, 319.

<sup>100</sup> Tennessee, State Agricultural Bureau, *Second Biennial Report*, 1856-1857, p. 96; *Country Gentleman*, XI, 365; Smith, J. G., *East Tennessee*, 7, 27, 37; Buckingham, *Slave States of America*, II, 253; Killebrew, *Resources of Tennessee*, 123, 126, 128, 310, 353, 433; *Tennessee Farmer*, I, 97.

<sup>101</sup> Smith, J. G., *East Tennessee*, 36.

the Western Virginian the Eastern Tennessean, the price and value of land increasing as the stream flows onward; as a proof of which, the lands in the two upper counties of East Tennessee (Sullivan and Washington) have within the last few years been gradually settling by the Western Virginians; and the lands in those counties, from no other cause, are rated fifty per cent higher than in Jefferson and Blount Counties."

West of the mountain ranges in Kentucky and Tennessee is the extensive Cumberland plateau, a region of rough and broken sandy and shale soils, isolated from market. For the most part these areas attracted only a sparse population of pioneer farmers, who made little progress beyond the log-cabin stage of development. Their life contrasted sharply in its poverty and isolation with the bountiful, comfortable, and sociable existence of the valley farmers.<sup>102</sup> A resident of Fentress County, Tennessee, located on the Cumberland plateau, described conditions as they existed about 1849. Land was worth from 30 cents to \$1 per acre. Cabin windows were without glass. The main industry was cattle raising. Young cattle were brought from the mountains and subsisted for about four months on the abundant grass. The purchase price averaged \$5, and at the end of the period they sold for an average of \$8.<sup>103</sup>

About 1838 a resident of Rockcastle County, near the western edge of the plateau in Kentucky, described the region as still thinly settled. Until recently agricultural products had not greatly exceeded local requirements, but lately they had begun to ship hogs and a few horses to southern markets. When population density increased, exports from the Appalachian region in general included small quantities of ginseng, whisky, butter, cheese, feathers, deer hams, bacon, lard, tallow, poultry, wool, chestnuts, chinkapins, apples, honey, and beeswax. Live cattle and hogs driven to market continued the main source of money return.<sup>104</sup> In the Kentucky plateau small quantities of coal were mined by the farmers, and rafts of logs were floated down the Cumberland or other streams.<sup>105</sup> As shown in Table 33, the mountain districts of Virginia and Kentucky, the Cumberland plateau, and the Missouri Ozarks owned more cattle and sheep per capita than the lowland farmers, not excepting the bluegrass areas of Kentucky. Only the Missouri River counties approximated the per capita holdings of the mountaineers. In the case of horses and mules, the lowland farmers were better equipped. The per capita holdings of swine in the Cumberland plateau out-ranked all the other farming regions. The Missouri Ozarks and Kentucky mountains were exceeded in per capita number only by middle Tennessee. The Virginia mountains, however, were characterized by a comparatively small number. In the Cumberland plateau of Kentucky and Tennessee the per capita production of wheat was very small, but the per capita production of the Virginia

<sup>102</sup> See p. 487.

<sup>103</sup> *Nashville Daily Union*, Aug. 14, 1849.

<sup>104</sup> *Franklin Farmer*, II, 380; Royall, *Sketches of History, Life and Manners in the United States*, 71; Featherstonhaugh, *Excursion through the Slave States*, I, 49; Buckingham, *Slave States of America*, II, 298; United States, Patent Office, *Annual Report*, 1854, *Agriculture*, 90; *American Agriculturist*, II, 301; Dew, *Review of the Debate of the Virginia Legislature of 1831 and 1832*, App., p. 131; Arthur, *Western North Carolina*, 284-287.

<sup>105</sup> Verhoeff, *Kentucky River Navigation*, 176-178, 192; *idem*, *Kentucky Mountains: Transportation and Commerce*, 32, 39.

mountains exceeded that of the valleys of east Tennessee and was three times that of middle Tennessee, although far below the production of the adjacent Valley of Virginia. The Virginia mountains, the valleys of east Tennessee, and the Kentucky Blue Grass led all the regions in per capita production of rye and oats considered together; the other mountain regions ranked below the lowland regions. The Valley of Virginia, and even east Tennessee, also ranked below some of the mountain regions in production of corn, but the other lowland districts excelled all the mountain regions in this respect. The Ozark area surpassed the other mountain areas in per capita production of corn, but resembled the Virginia mountains in output of wheat, rye, and oats. Potatoes, butter and cheese, hay, flax, tobacco, and wool were produced for home use in all the mountain regions.

Although in the mountain sections the broad general characteristics of rural economy were similar, the various mountain areas were by no means alike in degree of economic opportunity and in standard of living. Within the folds of the mountains were many narrow valleys, where the farmers, having the advantage of fairly level topography, frequently better soils, and superior means of transport and communication afforded by streams, were able to earn a much more bountiful and comfortable existence—albeit largely noncommercial as to crops—than the poor farmers on the adjacent ridges.<sup>106</sup> Many of the ridges consist of poor shale soils, and by reason of this and the further disadvantages of rough topography and isolation, supported a poor and squalid, though independent, population. Unable to raise grain in considerable abundance, and with but scanty grazing resources, these people did not possess the advantage of raising numerous livestock for market, which was possible in other parts of Appalachia. Their sales were confined to such products as ginseng, a little whisky, a few furs, and occasionally timber or small shipments of coal, iron, salt, or other nonagricultural products.<sup>107</sup> There are other areas, as in portions of southwest Virginia, where the ridges are capped with limestone soils, supporting luxuriant bluegrass pastures and crop rotations including clover. Such areas were able to sell numerous livestock, and thereby to obtain some of the comforts of life from the outside world.<sup>108</sup>

#### COTTON AND TOBACCO AREAS IN BORDER STATES WEST OF THE BLUE RIDGE

While the border States west of the Blue Ridge were largely areas of general farming, sometimes including tobacco and hemp as market products, there were several areas which were more clearly dominated by a single crop.

The Clarksville-Hopkinsville dark tobacco area of southern Kentucky has already been mentioned. While tobacco was the principal crop, some corn was also sent to market, and in the late fifties the farmers were beginning to find wheat

<sup>106</sup> *Sketch of Western Virginia for the Use of British Settlers*, 6.

<sup>107</sup> Verhoeff, *Kentucky Mountains: Transportation and Commerce*, 32. See above, p. 834.

<sup>108</sup> *North Carolina Planter*, III, 26; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, p. 48. Item from *Lewisburg Observer* (Virginia), reprinted in *Southern Planter*, V, 155; XIV, 260; *The Arator*, I, 307; Slade, *Journal of a Trip to Tennessee* (Duke University, Historical Papers, VI), 44-47.

profitable. Livestock were produced mainly for home use, although some pork and lard, processed in local packing plants, were exported.<sup>109</sup>

The section of western Kentucky lying east of the lower Cumberland river, comprising a rough triangle with Henderson and Owensboro as its basal points and Hopkinsville its apex, was also largely a tobacco-growing country, but with more general farming than prevailed in the Clarksville-Hopkinsville region. About 1822 a traveller found the central portion of the triangle sparsely settled, maintaining a rough, semipioneer economy.<sup>110</sup> Later, as population increased, the "Yellow Banks" tobacco of the area acquired a reputation. Corn probably exceeded tobacco in economic importance, and thousands of bushels were exported. Although clover and timothy flourished, there was less attention to bluegrass pastures and the growing of fine stock for market than in the Blue Grass. In the last decade of the period farmers were turning eagerly to wheat as a market crop.<sup>111</sup>

East of this region is a group of counties, largely in central Kentucky, including Breckinridge, Hancock, Ohio, Grayson, Hardin, and others, where tobacco was somewhat less important than in the region just described. The commercial agriculture of the central Kentucky area about 1838 was indicated by the exports from two counties, said to be representative of the area, as follows:<sup>112</sup>

	Breckin- ridge County	Barren County		Breckin- ridge County	Barren County
Tobacco (hhds.).....	1,600	2,000	Corn (bbls.).....	9,000	50 <sup>1</sup>
Pork (lbs.).....	60,000	.....	Oats (bbls.).....	20,000	.....
Cattle (no.).....	800	800	Sheep (no.).....	1,000	.....
Flour (bbls.).....	4,000	.....	Horses and mules (no.).....	200	700
Wheat (bus.).....	10,000	.....	Hogs (no.) <sup>2</sup> .....	.....	7,000

<sup>1</sup> Boatloads.

<sup>2</sup> In the source this is "number of pork and hogs." It is interpreted to mean number of hogs.

Evidently the more accessible county, Breckinridge, shipped larger quantities of grain, while Barren County was compelled to rely on the more cheaply transportable tobacco and livestock.

After passing out of the pioneer and squatter stage of development, the more accessible parts of west Tennessee were occupied by cotton planters, except the northern tier of counties, which became an important tobacco area producing a type especially adapted to use for plug tobacco wrappers. The western part of the region near the Mississippi enjoyed cheap transport to market. Here large-scale cotton plantations flourished. In the latter part of the period there were some interest and activity in the drainage of the wet lands. The farmers near the Tennessee river were compelled to resort to roundabout shipment of their cotton, tobacco, corn, and livestock to New Orleans by way of the Tennessee-Ohio-Mississippi route. Between the two main rivers was a large area handi-

<sup>109</sup> Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 548-549, 556-557. See above, pp. 755, 758.

<sup>110</sup> Blane, *Excursion through the United States and Canada*, 257-259.

<sup>111</sup> Kentucky State Agricultural Society, *Report*, 1856-1857, pp. 536, 544-547.

<sup>112</sup> *Franklin Farmer*, II, 173.

capped by poor transport facilities; the more accessible portions occupied by small cotton planters, who hauled their cotton to the Mississippi or the Tennessee, or shipped it down some of the small tributary streams. Toward the close of the period there was a tendency to try wheat as a market crop, and to become interested in the improvement of livestock.<sup>113</sup>

Even in the lower South, west of the Appalachian highlands, there were extensive areas where a general farm economy with small farmers prevailed. For the most part these areas were handicapped for the production of cotton because of poor soil, rough topography, or isolation. For instance, most of the large areas of light, sandy pine lands bordering the Gulf of Mexico were thinly settled by small farmers, many of them belonging to the class of poor whites, and their principal market products derived from livestock maintained on the open range.<sup>114</sup> A traveller who passed through this part of Mississippi in 1840 has left a vivid picture of its economic life. Settlement was scattering. Houses, usually built of logs, occurred at long intervals. Deer, wild turkey, and other game were abundant; and the male inhabitants divided their time between herding and hunting. A little land was cowpenned, and small amounts of cotton were raised for market, besides corn, wheat, cane, and vegetables for home use. Many of the inhabitants had orchards. Poultry, eggs, and homemade butter were produced, and hauled to the Mobile market in small carts built of pine boards and covered with awnings of striped cotton. Food was abundant and cheap: beef might be purchased for 3 cents a pound; game could be had for the taking; poultry, eggs, milk, butter, and cheese were produced in abundance; rice, wheat, corn, sugar, molasses, and wild honey were available. Sweet potatoes held an especially important place in the economy of the region, being consumed in many different forms, such as bread, a substitute for coffee, beer, molasses, and vinegar.<sup>115</sup> Toward the close of the ante bellum period the lumber industry began to make considerable progress in this region.<sup>116</sup>

Most of northern Georgia and northern Alabama, except the valley of the Tennessee river, were so rough and so distant from market that the economy resembled essentially that of other portions of Appalachia.<sup>117</sup>

<sup>113</sup> Tennessee, State Agricultural Bureau, *First Biennial Report*, 1855-1856, pp. 182, 194-199; *Second Biennial Report*, 1856-1857, p. 388; Williams, S. C. *Beginnings of West Tennessee*, 174-177, 204-206.

<sup>114</sup> See above, p. 834.

<sup>115</sup> Claiborne, J. F. H., *Trip through the Piney Woods* (Miss. Hist. Soc., Publications, IX), 514-534; cf. Mississippi, Geological Survey, *Report* (Hilgard, 1860), p. 361.

<sup>116</sup> *De Bow's Review*, XIX, 611.

<sup>117</sup> *Agriculturist*, IV, 13.

## CHAPTER XXXVII

### EXPANSION OF THE PLANTATION SYSTEM ON THE BASIS OF COTTON, 1815-1860

Fluctuations of the Cotton Area in the Border Regions of Production, 888. Beginnings of Expansion into the Gulf Plains, 893. Development of Alabama and Western Georgia, 894. Expansion of Cotton Production along the Lower Mississippi and Red Rivers, 896. Speculative Mania of the Thirties, 898. Rapid Expansion of Cotton Production during the Decade 1830-1840, 900. Anglo-Saxon Reoccupation of Florida, 901. Rounding out of the Cotton Belt after 1840, 902. Invasion of Texas by the Plantation System, 905.

The most suitable natural conditions for the growth of cotton are found in a few regions only, and in no region so extensive as the Southern States, where unfortunately the favorable natural conditions have been offset in recent decades by the boll weevil.<sup>1</sup> In the United States the northern boundary of the region best adapted climatically is the isotherm of 77° mean summer temperature or 70° for the growing season, and the line of two hundred days between frosts. Starting at the northeastern boundary of North Carolina, the line curves gradually southward, on account of the influence of the Appalachians, until it reaches as far south as 31 degrees north latitude, on the boundary between Georgia and Alabama. Thence the line moves gradually northward to the northwest boundary of Tennessee and northeastern Arkansas, taking in the southeastern extremity of Missouri, and passing through northeastern Arkansas and north central Oklahoma. The influence of the Ozark uplands causes it to dip southward again. North of this line, in Virginia, Kentucky, Illinois, and Missouri, cotton has occasionally been grown commercially in periods of high prices; and for family use in Maryland and other Middle States. On the west the area of cotton development, except by irrigation, was limited until recent decades by the 100th meridian or, more exactly, by the line of 23 inches average annual rainfall; but before the Civil War the commercial expansion of the industry did not extend beyond the 97th meridian. Within this favored area the cotton region has been still more narrowly limited by soil conditions. The crop does not thrive without fertilizers in the broad belt of thin sandy lands, having an original forest growth of pines, comprised in the Atlantic and Gulf coastal plain. Prior to the Civil War there was little development of cotton cultivation in that region. Cotton progressed but little in the marsh lands that border the Gulf in southern Louisiana, nor, except for family use, in the southern Appalachian region.

#### FLUCTUATIONS OF THE COTTON AREA IN THE BORDER REGIONS OF PRODUCTION

North of the climatic boundary mentioned above the industry waxed and waned during the ante bellum period largely in accordance with prices of cotton. This fluctuation in and out of commercial production occurred particularly in

<sup>1</sup> Concerning the climatic requirements of cotton, see United States, Dept. Agric., *Atlas of American Agriculture*, V, Sec. A, *Cotton*, 9.

two principal regions, southern Virginia and the southern and central part of the Nashville Basin.

In the former region the high prices following the close of the War of 1812 stimulated rapid development of commercial cotton production, and the industry extended as far north as the neighborhood of Richmond, Virginia. Owing to the careful methods of Virginia and North Carolina planters in ginning their cotton and preparing it for market, it commanded a premium over South Carolina uplands; and by 1826 Virginia and North Carolina cotton had been given a special classification in the English market.<sup>2</sup> By 1835 the region along the lower Roanoke river in northeastern North Carolina, which had taken up cotton enthusiastically after the War of 1812, had largely shifted from corn to cotton, and a shift from grain and tobacco to cotton had occurred in Prince George County, Virginia, attributed to low prices of grain and the lack of new lands that could be cleared for tobacco.<sup>3</sup> By 1836, however, although cotton had commanded good prices for several years, a planter of Surry County, Virginia, was advising his fellow planters to abandon cotton production, as they had been "warned by two or three successive and almost entire failures, that our climate is by no means favorable to its growth."<sup>4</sup>

It is difficult to determine the size and extent of the Virginia crop, for much North Carolina cotton found its way to market through Virginia ports. Woodbury estimated the Virginia product at 12,000,000 pounds in 1821, 25,000,000 in 1826, 13,000,000 in 1833, and 10,000,000 in 1834. For North Carolina he estimated 10,000,000 pounds in 1821, 18,000,000 in 1826, 10,000,000 in 1833, and 9,500,000 in 1834.<sup>5</sup> The indication that cotton production in Virginia and North Carolina reached a peak about 1826 and tended to decline during the following decade appears to be confirmed by other data. Statistics of annual production from 1828-29 to 1842-43 inclusive for the combined product of Virginia and North Carolina show a steadily declining trend from 104,021 bales in 1828-29 to 22,508 bales in 1842-43. In the three years 1845-46 to 1848-49 the annual average for the two States together was less than 20,000 bales.<sup>6</sup> For the latter part of the period, however, the decrease in the joint product was probably due mainly, if not entirely, to the continued decline of Virginia production. The census for 1839 showed the equivalent of 3,057 bales (400 pounds) for Virginia, and for 1849 a little less than 4,000. The higher prices of the late fifties, however, stimulated some revival, and nearly 13,000 bales were reported for 1859. The geographic distribution of production was much wider than the dots on the map indicate. (Figs. 11, 12.) In 1839 cotton was produced for market in 59 Virginia counties, of which 27 were north of James River; and in 1849 in 52 counties, of which 24 were north of James River.<sup>7</sup>

<sup>2</sup> *Niles' Register*, XXVI, 253; XXIX, 243; XXX, 137, 174; Warden, *Account of the United States*, II, 212; *Florence Gazette* (Alabama), Apr. 21, 1825.

<sup>3</sup> *Farmers' Register*, I, 232; II, 122.

<sup>4</sup> Watkins, *King Cotton*, 48.

<sup>5</sup> *Report on Cotton*, 13.

<sup>6</sup> *Niles' Register*, LXIV, 373; cf. De Coin, *Cotton and Tobacco*, 24, 32; *Hunt's Merchants' Magazine*, IX, 372; *De Bow's Review*, XVII, 429.

<sup>7</sup> *United States Census*, 1840, p. 238; 1850, p. 278; 1860, *Agriculture*, 163; Watkins, *King Cotton*, 44, 48-49. In this discussion the amount of "cotton gathered" reported by the census for 1839 has been reduced to ginned cotton at the ratio of 35 per cent.

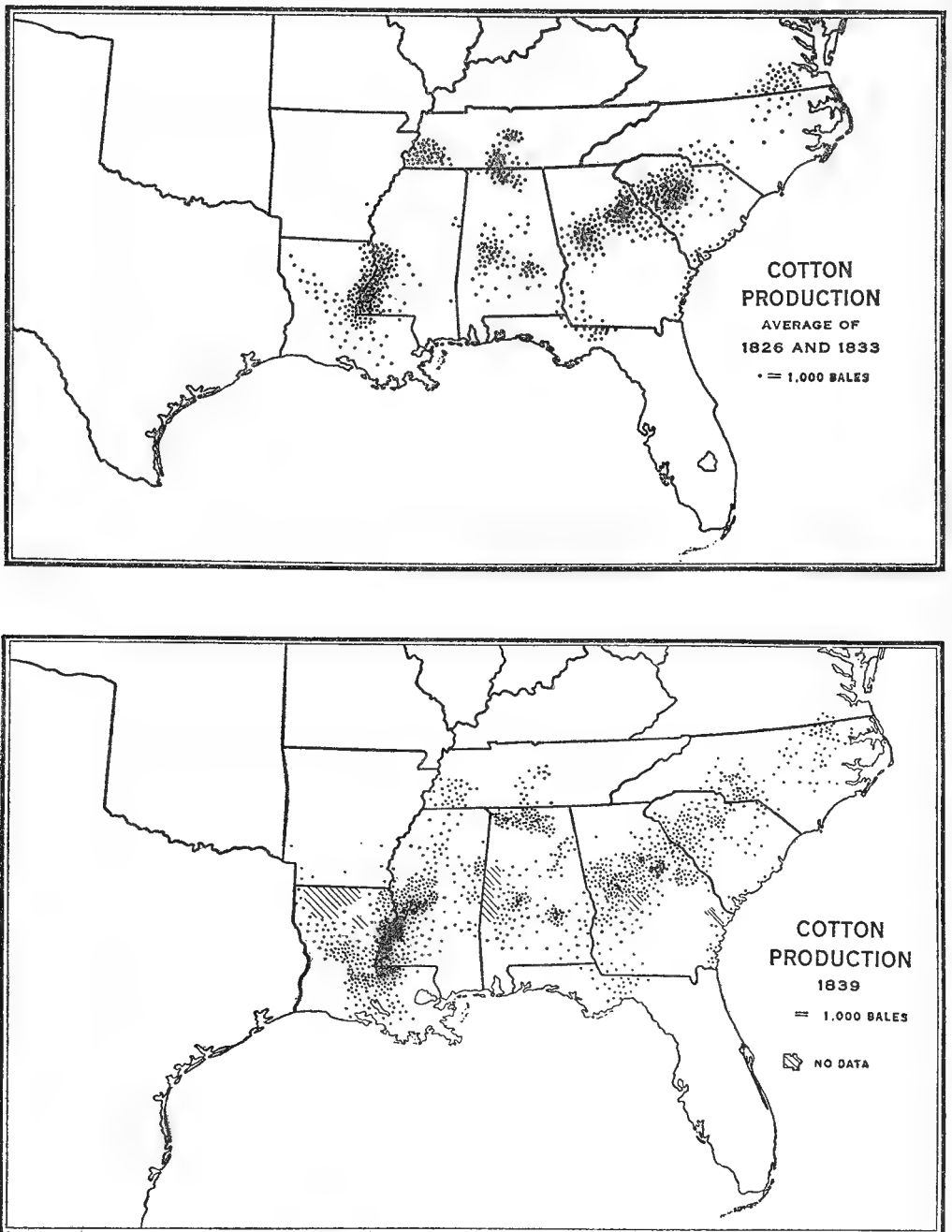


FIG. 11.—Geographic expansion of cotton production in the Southern States, from about 1829 to 1839. The first map is an average of production for the years 1826 to 1833 inclusive, based on the estimates of Levi Woodbury. The data for 1839 are from the census. The maps are reproduced from the *Atlas of American Agriculture*, Part V, Section A, *Cotton*.



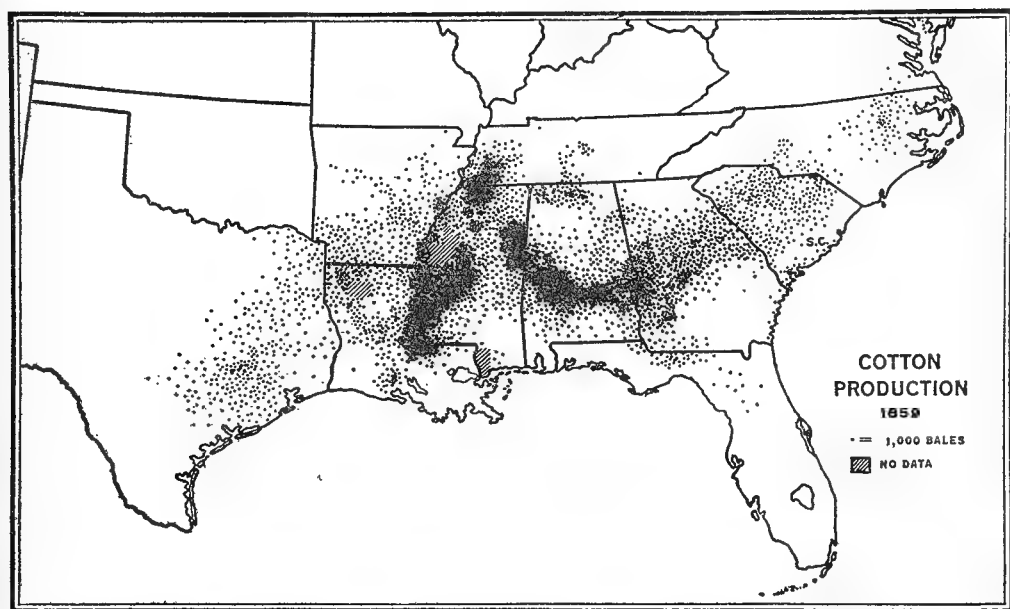
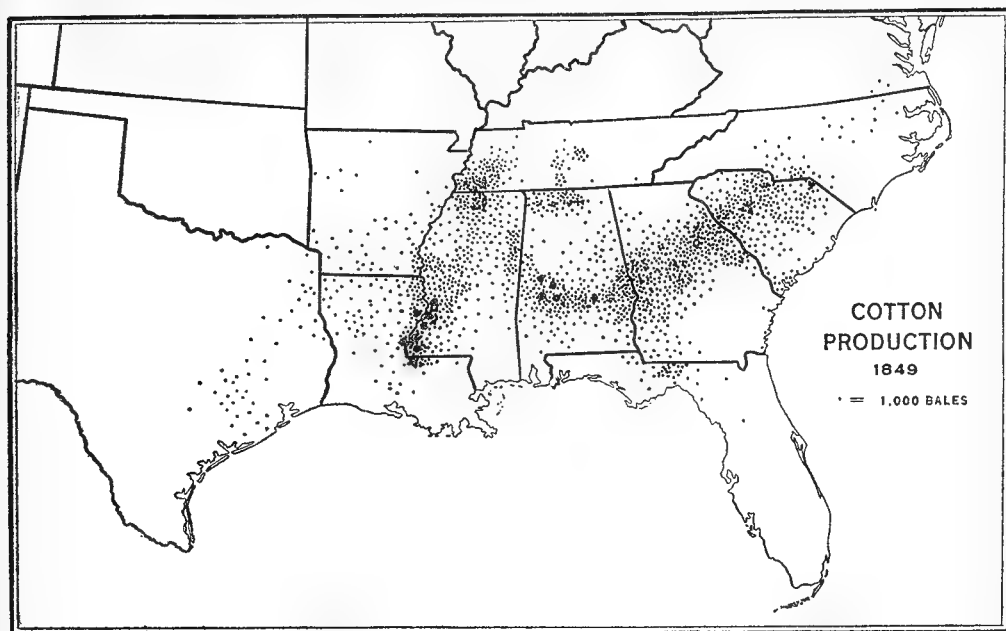


FIG. 12.—Geographic expansion of cotton production in the Southern States, 1849 to 1859. The maps are based on the census, and are reproduced from the *Atlas of American Agriculture*, Part V, Section A, *Cotton*.

On the other hand, although Woodbury's estimate for North Carolina in 1834 was only 9,500,000 pounds, probably equivalent to nearly 25,000 bales of that period, the product of North Carolina was reported in the census of 1840 at a little more than 45,000 bales. From this time forward the trend of the North Carolina industry was steadily upward, in spite of the low prices of the forties, production reaching 73,845 bales in 1849, and under the stimulus of the higher prices of the next decade, amounting to 145,514 bales in 1859.<sup>8</sup> In 1860 it was asserted, "Tobacco is invading North Carolina from Virginia and cotton from South Carolina, or rather our people are returning to the culture of these staples." Of the two important regions of cotton production in the State, which had begun to be defined as early as 1821 (Fig. 11), the northeastern region was advancing more rapidly in 1860 than the central-southern region.<sup>9</sup>

In the other important marginal region, the Nashville Basin, the early pioneers, as we have seen, eagerly seized upon cotton as a "money" crop. By 1816 it was estimated that the State was exporting 1,500 bales, practically all from middle Tennessee. Woodbury's estimates for the State were 20,000,000 pounds in 1821, 45,000,000 in 1826, 50,000,000 in 1833, and 45,000,000 in 1834. A contemporary estimate for 1833 was 150,000 bales, which is probably not far from Woodbury's estimate for 1834. Practically all of this was from middle Tennessee except a small amount from west Tennessee, amounting to only about 1,000 bales in 1830, but rapidly increasing.<sup>10</sup> The vicissitudes of cotton production in middle Tennessee are described in the reminiscences of a citizen, published in 1842. He asserted:<sup>11</sup>

"From this date [1802] until 1812 but little difficulty was experienced in the culture of Cotton—the seasons were mild—its growth seldom impeded by cold in the spring, or injured by early frost in the fall. But from the date of that gloomy season, which alarmed so many, commonly termed 'the shakes'—there appeared to be an evident change in the seasons—and the culture of Cotton was, for several years, almost an entire failure. . . . But in the year 1824, fine crops of Cotton were again realized in Tennessee, yet this success was of short duration. . . . To say the least of it, the culture of Cotton in Middle Tennessee has been precarious since 1812, and by no means a source to be relied on."

During the low prices of the forties, as we have noted, there was a tendency to turn more to livestock husbandry and to hemp production in the cotton counties of middle Tennessee. The census of 1840 showed a considerable decrease in cotton production over the average for the years 1826 and 1833 based on Woodbury's estimates. (See Figs. 11, 12.) The crop reported for 1849 was larger than that of 1839, and the better prices of the sixth decade stimulated the considerable increase reported in the census of 1860. There were occasional experiments in cotton production after the War of 1812 in States entirely outside the

<sup>8</sup> *United States Census*, 1840, p. 246; 1850, p. 322; 1860, *Agriculture*, 109; *Hunt's Merchants' Magazine*, IX, 372; *De Bow's Review*, XVII, 429.

<sup>9</sup> *United States Agricultural Society, Journal*, VIII, 184.

<sup>10</sup> *Niles' Register*, XIII, 176; Woodbury, *Report on Cotton*, 13; Watkins, *King Cotton*, 256; Tennessee, *House Journal*, 1833, p. 356.

<sup>11</sup> *Agriculturist*, III, 40.

region of regular production such as Maryland and southern Illinois, and cotton continued to be raised in Kentucky and Missouri for domestic consumption.<sup>12</sup>

#### BEGINNINGS OF EXPANSION INTO THE GULF PLAINS

Before the War of 1812 cotton production had developed mainly in regions already settled, and during the war there was probably little expansion of settlement in the South. The frontiers were endangered by the Indians, and the market for Southern products severely restricted. The low prices from 1809 to 1814 inclusive probably served to discourage expansion. From 1815 to 1819, however, prices of cotton averaged nearly double the prices of the preceding period; it was easy to become rich in a few years, and "there were planters, who had thirty and forty thousand dollars a year, as the income of their crop."<sup>13</sup> These conditions supplied the stimulus which initiated a period of unprecedented expansion. Cotton production rapidly expanded and became the vehicle for the introduction of Anglo-Saxon civilization into thousands of square miles. As shown by the maps (Figs. 11, 12), the principal outlines of the Cotton Belt were formed in the twenty-five years from 1815 to 1840, with the exception of Texas. Even there the industry had made considerable headway, which appears graphically for the first time in 1849.

At the outbreak of the War of 1812 the principal centers of settlement in Alabama were in the neighborhood of Mobile; the post of St. Stephens, on the lower Tombigbee, established by Tories during the Revolution; and a group of settlements in Madison County in the Tennessee River valley, occupied by Georgia planters in 1809.<sup>14</sup> The St. Stephens group were handicapped in marketing their products because of the Spanish occupancy of Mobile. Most of what is now Alabama, Mississippi, and Arkansas was still in possession of Indian tribes. The territory in southwest Mississippi ceded to Great Britain by the Choctaws was confirmed to the United States by the treaty of Fort Adams (1801). It comprised a small territory between the Mississippi and a line running for a short distance east of Vicksburg almost due south of the 31st parallel. In 1805 the Choctaws ceded a broad strip about fifty miles wide running eastward from the eastern boundary of the Fort Adams cession and nearly parallel with the line of 31 degrees north latitude.<sup>15</sup> The successful Indian campaigns of Andrew Jackson opened up the fertile canebrake lands of the western half of central Alabama. In 1814 the territory between the Tombigbee and Coosa rivers and also the territory southeast of the Coosa were ceded by the Creeks. This acquisition was supplemented by the Chickasaw and Cherokee cessions in the Fall of 1816, which added a large strip in western Alabama between the Tombigbee and Tuscaloosa rivers, extending northward and broadening out to include the greater part of northern Alabama south of the Tennessee river. Cessions by the Choctaws in the same year added a large strip in southern Alabama, though not a

<sup>12</sup> *Niles' Register*, XXXII, 82; Ogden, *Letters from the West* (Thwaites, *Early Western Travels*, XIX), 57; Blane, *Excursion through the United States and Canada*, 257-259.

<sup>13</sup> Flint, *Geography and History of the Western States*, I, 506.

<sup>14</sup> Abernethy, *Formative Period in Alabama*, 9-15.

<sup>15</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, 660, 672.

region that proved well adapted to commercial production of cotton.<sup>16</sup> In 1818 was effected the cession of the greater part of Arkansas south of the Arkansas river, including a portion of northern Louisiana. Most of the remainder of Arkansas had been acquired by treaty in 1808. In 1819 the Choctaws ceded a large block of territory, including much of the Yazoo Delta.<sup>17</sup> The presence of Indian tribes for some years longer prevented progress of settlement in western Georgia, eastern Alabama, and much of eastern Mississippi.

#### DEVELOPMENT OF ALABAMA AND WESTERN GEORGIA

The southern half of Alabama includes a number of physiographic regions of widely contrasting adaptability to cotton growing. Along the southern border of the State a strip of territory varying in width from twenty to sixty miles consisted largely of pine hills, open rolling pine woods, and pine flats. The same type of country was comprised in the southeastern portion of Mississippi and several parishes in southeastern Louisiana.<sup>18</sup> Before 1830 the region maintained a considerable population and a few plantations; but after the opening of the rich lands in the central part of Alabama the planting population was largely drawn away. By 1840, as we have noted, the region was inhabited mainly by a population engaged largely in herding supplemented by farming for domestic consumption and here and there the production of small quantities of cotton.<sup>19</sup> North of this sandy country is a broad belt of uplands running parallel with it, averaging in width about fifty miles and containing about 8,000 square miles. The original timber growth consisted of oak and hickory, interspersed with long-leaf pine, which was more abundant in the southern portion of the belt, decreasing gradually toward the north. The soil is less sandy and more fertile in the northern two thirds of the region, which was found well adapted to cotton. In the western portion of this belt is a hilly, calcareous region, belonging to the tertiary, comprising an area of about 1,200 square miles.<sup>20</sup> (See Fig. 1.)

North of this region is the rich black prairie of central Alabama, which extends in a belt from east to west averaging about thirty miles in width. Near the Mississippi line the belt curves to the northwest and extends northward into northeastern Mississippi. A large proportion of the area consists of heavy, black clay, containing large quantities of disintegrated limestone, and when in a virgin condition contained abundant amounts of phosphorus, potash, and humus. Although the region as a whole was called a prairie, some of it was wooded. The early settlers found that cotton tended to suffer seriously from rust on the prairie itself, which, however, was extremely productive in corn and grass. Settlers were advised to select their farms so as to contain some wood-

<sup>16</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, 662, 678-684, map No. 1.

<sup>17</sup> *Ibid.*, map No. 5, and pp. 676, 688, 700. See map of Indian cessions, in Turner, F. J., *Rise of the New West*, following p. 310, and in Treat, *National Land System*, 164.

<sup>18</sup> Comprising Baldwin, Mobile, Washington, Escambia, and Geneva counties, with portions of Covington, Coffee, Dale, Henry, Monroe, and Conecuh counties, in Alabama; Jackson, Harrison, Hancock, Greene, Perry, Marion, Covington, Jones, and Wayne counties, in Mississippi; and portions of Washington, St. Tammany, Tangipahoa, and Livingston parishes, in Louisiana.

<sup>19</sup> See above, p. 887.

<sup>20</sup> Smith's article on cotton production in Alabama, in *United States Census*, 1880, VI, *Cotton Production*, 37-45, 52-54.

land and some prairie.<sup>21</sup> The tide of settlers began to enter this new region during the second and third decades, coming from eastern Georgia, the Carolinas, Virginia, and middle Tennessee.<sup>22</sup> An examination of the tract books of certain counties of the calcareous belt indicates that prior to 1830 settlers had largely occupied the wooded bottom lands, not having yet learned how to deal with conditions in the prairie. However, between this time and 1837 the region was rapidly occupied, and by the latter year uncleared lands were selling at \$35 an acre, the cost of clearing requiring an additional \$15.<sup>23</sup> The region as a whole comprised one of the most productive cotton areas in the South, and its rapid development is reflected in statistics of cotton production from southern Alabama which averaged annually about 11,000 bales from 1818 to 1820 inclusive, 46,000 from 1822 to 1824; 80,000 from 1827 to 1829; and 195,000 from 1834 to 1836.<sup>24</sup>

In the extreme northern part of Alabama the new settlers came upon the fertile lands of the Tennessee River valley. In 1806 the Cherokees ceded a large part of this region, as far south as the Tennessee river, bounded by that river on the west and extending eastward to a line running from Chickasaw Old Fields to the most easterly source of Duck River, with the exception of a small reservation about Muscle Shoals.<sup>25</sup> Although practically unsettled in 1810, Limestone and Madison counties contained by 1820 a free population of 27,352 and a slave population of 11,541. The following year it was estimated that the product of the "Big Bend of Tennessee River" would be not far short of 30,000 bales. In 1821 the product of north Alabama was estimated at 50,000 bales.<sup>26</sup> This part of Alabama suffered a serious disadvantage in that its products could reach market only by being carried down the Tennessee river to the Ohio and thence to New Orleans, a distance of about fifteen hundred miles. Most of the imports were brought from the East to Pittsburgh by wagon, thence down the Ohio, and up the Cumberland and Tennessee. The region was separated from the plantation regions of central Alabama by the rugged lands of northern Alabama, occupied largely by small self-sufficing farmers with little commercial agriculture. There was not much commercial intercourse between the two plantation regions, for central Alabama shipped its products to Mobile by way of the numerous rivers tributary to the Gulf. Near the close of the ante bellum period the commercial isolation of northern Alabama was partly overcome by the construction of the Mobile and Ohio Railway.<sup>27</sup>

Between 1820 and 1830 the cotton area of Georgia was greatly enlarged. In 1821 a large area between the Ocmulgee and the Flint rivers, ceded by the Creeks, was thrown open to settlement. Five years later a prolonged controversy be-

<sup>21</sup> *Southern Cabinet*, I, 7-9; *Farmers' Register*, I, 279; Ruffin, *Notes on the Cane-Brake Lands*, 20-22.

<sup>22</sup> Smith, N. F., *Pickens County*, 37, 41.

<sup>23</sup> Abernethy, *Formative Period in Alabama*, 22; Du Bose, *William Lowndes Yancey*, 81.

<sup>24</sup> *Mobile Daily Commercial Register and Patriot*, Oct. 3, 1836; *United States Census*, 1880, VI, *Cotton Production*, 45-48; cf. De Coin, *Cotton and Tobacco*, 82.

<sup>25</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, map No. 1, and pp. 678-684.

<sup>26</sup> *Cahawba Press and Alabama State Intelligencer*, Dec. 31, 1821; *Alabama Republican* (Huntsville), Jan. 11, 1822; *Niles' Register*, XXI, 16; XXX, 241.

<sup>27</sup> *De Bow's Review*, VIII, 179; *American Agriculturist*, III, 25; Royall, *Letters from Alabama*, 161-163; *Hunt's Merchants' Magazine*, XIV, 104. See below, p. 904.

tween the Creeks, the State of Georgia, and the United States was brought to an end by the further cession of the territory between the Flint and the Chattahoochee rivers. By 1830 settlement in middle Georgia had extended to the western border of the State, and the area was rapidly peopled during the next decade.<sup>28</sup>

#### EXPANSION OF COTTON PRODUCTION ALONG THE LOWER MISSISSIPPI AND RED RIVERS

Before 1820 there appears to have been no unusually rapid development in the old plantation region of Louisiana. At that time the region produced some cotton, in addition to the main staple, sugar, but in the late twenties and early thirties turned almost completely to sugar production.<sup>29</sup> In the early years of the century the old French plantation region between Baton Rouge and New Orleans was already the admiration of travellers. Although within a few years the region had been enriched by the huge profits from sugar production, there still remained much of the dignity and simplicity of the older régime. In 1818 a traveller wrote of this region:<sup>30</sup>

"The plantations within these limits are superb beyond description. Some of them resemble villages. The dwelling houses of the planters are not inferior to any in the United States, either with respect to size, architecture, or the manner in which they are furnished. The gardens, and yards contiguous to them, are formed and decorated with much taste. The cotton, sugar, and ware houses are very large, and the buildings for the slaves are well finished. The latter buildings are, in some cases, forty or fifty in number, and each of them will accomodate ten or twelve persons. The plantations are very extensive, and on some of them there are hundreds of negroes. The planters here derive immense profits from the cultivation of their estates. The yearly income from them is from 20,000 to 30,000 dollars. . . .

"About seventy miles below Baton Rouge, the country is wonderfully fine. No description of mine can do justice to the appearance of its principal establishments. There are here the most superb dwelling houses. They are second to none in size, architecture, or decorations. The gardens attached to them are spacious, and elegantly ornamented with orange and fig trees. At a little distance from them are vast buildings, occupied for sugar mills and cotton presses, and for the storage of the immense productions of the plantations. Near these, are from fifty to one hundred neat buildings, for the negroes, beyond them are spacious and elegant oblong fields, constituting one hundred acres, and under the highest state of cultivation."

In 1810 the group of eight parishes which later comprised the most important sugar producing region contained 7,704 whites and 4,662 slaves. Ten years later the population had increased to 14,161 free people and 10,861 slaves.<sup>31</sup> The rapid development of the western side of the lower Mississippi began in the decade 1820 to 1830, when the tide of planters from the Eastern States began

<sup>28</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, map No. 15, and pp. 702, 715. See also Phillips, U. B., *Georgia and State Rights*, map opposite p. 40; Turner, F. J., *Rise of the New West*, 309-313.

<sup>29</sup> Watkins, *King Cotton*, 193.

<sup>30</sup> Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 325, 330; cf. Flügel, *Journal of a Voyage down the Mississippi in 1817* (Louisiana Historical Quarterly, VII), 425.

<sup>31</sup> Assumption, West Baton Rouge, Iberville, Jefferson, Lafourche, St. James. St. Mary and Terrebonne were not listed in the census reports for 1810 and 1820. *United States Census*.

to pour into the country. The initial antagonism between the earlier inhabitants and the newcomers was gradually mitigated by the advantages of rising land values.<sup>32</sup> Woodbury estimated the product of Louisiana at only 2,000,000 pounds for 1811 and at 10,000,000 for 1821; but in 1826 it reached 38,000,000 and eight years later, 62,000,000.<sup>33</sup>

While immigration from the Eastern Colonies had been slow to venture into the old and well established French civilization on the west side of the river, it was early attracted to the English settlements of the Natchez region. This ancient nucleus became the earliest section of extensive Anglo-Saxon expansion in the lower Mississippi. As late as 1772 there were but 78 families scattered through the territory surrounding Natchez, but by 1785 the population of the district had increased to 1,550 and by 1788 to 2,679, mainly composed of settlers from the Atlantic seaboard.<sup>34</sup> This was a region of pioneer farmers who sold small quantities of tobacco and maintained a diversified and largely self-sufficing economy. When tobacco began to suffer severe competition from Kentucky and Tennessee, the region turned eagerly to cotton. By 1808 there was a well developed plantation system, devoted almost exclusively to cotton and dependent on Kentucky and Tennessee for flour, pork, beef, and horses. The wealthier planters had already built comfortable houses and were beginning to enjoy some of the elegancies of living, although some of the old pioneer conditions still continued.<sup>35</sup> In the period 1800-1810 the free population of four counties of the region—Adams, Claiborne, Jefferson, and Wilkinson—increased from 2,403 to 10,542; and the slave population from 2,257 to 11,631. As late as 1827, however, on account of lack of an adequate levee system, there was little development on the eastern side of the river from a little below Natchez to Baton Rouge.<sup>36</sup> The cotton crop of Mississippi, according to Woodbury, was 10,000,000 pounds by 1821. It increased threefold in the next five years, and more than eightfold by 1834.<sup>37</sup>

Between 1810 and 1820 the so-called Attakapas and Opelousas country in southern Louisiana was beginning to attract the attention of eastern cotton planters. In the extensive prairies previously occupied by herds of cattle owned by easy-going Creole planter-herdsmen, the eastern immigrant found the establishment of a profitable cotton plantation unusually easy. There were "no forests to cut down, . . . no chopping, no grubbing." The planter had "nothing to do, but to build his house, inclose his field and commence ploughing." The high yields of the virgin lands combined with high prices of cotton in the years immediately following the War of 1812 enabled planters to earn \$500 to \$600 per hand in cotton production and up to \$800 or more in sugar.<sup>38</sup>

<sup>32</sup> Stoddard, *Sketches of Louisiana*, 162; Darby, *Geographical Description of Louisiana*, 274.

<sup>33</sup> *Report on Cotton*, 13.

<sup>34</sup> Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), pp. 62, 78-81.

<sup>35</sup> Cf. the detailed account in Cuming, *Tour to the Western Country*, 284-303, 322; Mississippi, Agricultural and Geological Survey, *Report* (Wailles, 1854), pp. 157, 167; Claiborne, W. C. C., *Official Letter Books*, I, 39; II, 10; Butler, L., "West Feliciana," in *Louisiana Historical Quarterly*, VII, 96.

<sup>36</sup> *United States Census*, 1800, p. 85; 1810, p. 83; Bullock, W., *Sketch of a Journey through the Western States*, etc., p. xiii; Evans, *Pedestrian Tour* (Thwaites, *Early Western Travels*, VIII), 325.

<sup>37</sup> *Report on Cotton*, 13.

<sup>38</sup> Actual cases are cited in *Niles' Register*, XIII, 38; cf. *Charleston Courier*, Aug, 12, 1819.

Similarly favorable conditions stimulated rapid development in the alluvial lands of Red River. By 1819 the planters near Alexandria, who had already made large fortunes raising cotton and sugar, were selling their lands for \$40 to \$50, and moving to the rich alluvial lands on the Ouachita or farther up Red River, which could be bought for \$5 to \$10.<sup>39</sup> Near Natchitoches navigation was obstructed by a huge raft, originally from 128 to 160 miles in length. In 1833 the United States Government undertook its removal. In the first season the lower hundred miles, which was in a state of decay, was easily cleared as far as Shreveport, but the removal of the upper portion was not entirely completed until 1850.<sup>40</sup> In 1839 the Indians were removed from the region immediately above the raft, but for some years settlers had been rapidly occupying the fertile lands of the upper Red river and its tributaries in Louisiana, southwestern Arkansas, and northeastern Texas. Before the Civil War this stream of settlers had extended as far west as Fannin County, Texas, whence cotton was hauled by wagon or shipped by boat to Shreveport.<sup>41</sup> Before the annexation of Texas, southwestern Arkansas was the *ultima Thule* of southern agricultural expansion in the United States, and even in 1834 pioneer life there resembled in essential details the pioneer life of Kentucky and Tennessee before the close of the eighteenth century.<sup>42</sup>

Whereas the lower prices of cotton for the crop years 1819 to 1832 inclusive, and especially 1826 to 1832, brought hardships and depression to the older cotton producing regions, it was still possible in the newer lands to produce cotton, though at somewhat lessened profits. Consequently in these periods immigration to the Southwest does not appear to have been materially retarded. Exports from New Orleans increased from 48,000 bales in 1819 and 156,000 in 1822 to 426,000 in 1830-31. Of the receipts for 1829-30, amounting to 362,969 bales, 179,094 were credited to Louisiana and Mississippi, 163,295 to northern Alabama and Tennessee, 3,512 to Arkansas, 193 to Missouri, and 7 to Illinois. The remainder consisted of transshipments.<sup>43</sup>

When the Chickasaws surrendered title in 1818 to the region in Tennessee between the Tennessee and the Mississippi,<sup>44</sup> another fertile area was made available for cotton. As early as 1816 some 1,500 bales were shipped to New Orleans from west Tennessee, but the beginnings of rapid development in this region did not occur until about a decade later. By 1840 receipts of cotton at Memphis were about 35,000 bales.<sup>45</sup>

#### SPECULATIVE MANIA OF THE THIRTIES

The decade 1830 to 1840 was a period of remarkable expansion. The removal of the tribes across the Mississippi between 1832 and 1834 opened to settlement

<sup>39</sup> *Charleston Courier*, Aug. 12, 1819.

<sup>40</sup> *De Bow's Review*, X, 103; XIX, 439; XXVI, 100; *Hunt's Merchants' Magazine*, XI, 414.

<sup>41</sup> *De Bow's Review*, III, 351; XI, 412; XII, 319.

<sup>42</sup> Cf. interesting letters from Hempstead County, Arkansas, published in *Farmer and Gardener* I, 321, 409; II, 253.

<sup>43</sup> *Niles' Register*, XIII, 31; XXXI, 159; LXIV, 373; *New Orleans Courier*, Aug. 14, Oct. 2, 1830.

<sup>44</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, 694, and map No. 54.

<sup>45</sup> *Niles' Register*, XIII, 176; Watkins, *King Cotton*, 256.



large areas in northwestern Georgia and eastern Alabama held by the Creeks, the territories on the border of Alabama and Mississippi inhabited by the Choctaws, and the Chickasaw country in northern and northwestern Mississippi.<sup>46</sup>

The opening of these new territories and a fuller realization of the opportunities in areas previously opened but not yet fully occupied paved the way for the craze for speculation which was stimulated by the easy credit and the period of high prices of cotton beginning with the crop year 1833-34. According to a traveller who visited Alabama just before the panic of 1837, the profit on cotton planting was commonly 35 per cent. One planter whom she met bought a plantation for \$15,000, valued it two years later at \$65,000, and in the second year expected to receive between \$50,000 and \$60,000 for his growing crop.<sup>47</sup> A mania developed for buying land and slaves, fostered by the employment of State credit in the promotion of banks. During the years 1834 to 1837 inclusive \$80,321,000 was invested in bank capital in Mississippi, Louisiana, Arkansas, Florida, and Alabama, over three fourths of the total in the first two States. Of the total, \$32,321,000 consisted of State loans or private loans guaranteed by the States.<sup>48</sup> The new banks loaned money lavishly on land, slaves, and cotton, at inflated values. In Alabama taxes were repealed in the belief that profits from the State bank would meet all State expenses.<sup>49</sup>

Immigrants poured in from the older planting States: planters whose lands were exhausted, bankrupts with nothing to lose, and younger sons sent out from the parental roof with a dozen slaves to make a fortune in the new country. In many cases planters in the older States established plantations in the Southwest under the supervision of kinsmen or trusted overseers, without themselves removing thither.<sup>50</sup> The psychology of this period of extravagant expansion has been so well portrayed by a contemporary that his description is worth quoting:<sup>51</sup>

"A new theory, not found in the works on political economy, was broached. It was found out that the prejudice in favor of the metals (brass excluded) was an absurd superstition; and that, in reality, anything else, which the parties interested in giving it currency chose, might serve as a representative of value and medium of exchange of property; . . .

" . . . Money, or what passed for money, was the only cheap thing to be had. Every cross-road and every avocation presented an opening,—through which a fortune was seen by the adventurer in near perspective. Credit was a thing of course. To refuse it—if the thing was ever done—were an insult for which a bowie-knife were not a too summary or exemplary a means of redress. The State banks were issuing their bills by the sheet, like a patent steam printing-press *its* issues; and no other showing was asked of the applicant for the loan than an authentication of his great distress for money. . . .

"Under this stimulating process prices rose like smoke. Lots in obscure villages were held at city prices; lands, bought at the minimum cost of government, were sold at from thirty to forty dollars per acre, and considered dirt cheap at that."

<sup>46</sup> United States, Bur. of Amer. Ethnology, *Eighteenth Annual Report*, Pt. II, 726, 734; cf. MacDonald, *Jacksonian Democracy*, Chap. X.

<sup>47</sup> Martineau, *Society in America*, I, 307.

<sup>48</sup> See table in *De Bow's Review*, IV, 86; *Hunt's Merchants' Magazine*, XIII, 471.

<sup>49</sup> *Ibid.*, 470; XL, 181; cf. Scott, W. A., *Repudiation of State Debts*, especially pp. 221-229.

<sup>50</sup> *Louisiana Journal* (St. Francisville), Aug. 20, 1825.

<sup>51</sup> Baldwin, *Flush Times of Alabama and Mississippi*, 81-84.

The sudden collapse in 1837 not only ruined the mushroom banks but sent thousands of planters into bankruptcy, while many others fled precipitately to Texas to escape the execution of judgments on their slaves.<sup>52</sup>

#### RAPID EXPANSION OF COTTON PRODUCTION DURING THE DECADE 1830-1840

The speculative bubble called into cultivation so large an area of cotton land as to overwhelm the markets. Much of the land, it is true, was bought for mere speculation; but enough was put in cultivation to increase production enormously. From the three-year period centering on 1832-33 to the three-year period centering on 1841-42, New Orleans exports increased from 394,000 bales to 873,000; Mobile exports from 135,000 to 371,000. On the other hand, in the South Atlantic States as a whole the industry was nearly or quite stationary. South Carolina increased from 194,000 to 280,000, possibly by reason of larger shipments from Georgia to Charleston by the Hamburg-Charleston Railway; Georgia decreased from 269,000 to 225,000, in spite of the expansion in western Georgia; and North Carolina and Virginia decreased from 68,000 bales to 27,000 bales.<sup>53</sup>

During the decade a number of newly occupied regions increased rapidly in population and production. The free population of seven counties in central Alabama<sup>54</sup> increased from 22,613 in 1830 to 60,514 in 1840; and the slave population from 14,427 to 65,204. The population of three Mississippi counties—Noxubee, Lowndes, and Monroe—increased from 7,034 to 33,738.<sup>55</sup> The settlement of southwestern Tennessee continued with great rapidity, and the same stream of population spread across the border into the fertile silt loam uplands of northern Mississippi, also tributary to Memphis. The receipts of cotton at Memphis increased from 35,000 bales in 1840 to 150,000 in 1850, and 361,000 in 1860. Cotton production was also rapidly expanded in the rich black prairie lands in northeastern Mississippi, tributary to Mobile by way of the Tombigbee river.<sup>56</sup> The alluvial lands bordering the Yazoo and the Big Black, in the west central portion of the State, were settled with great rapidity, and there was also a substantial increase in the population of the older counties in the vicinity of Natchez. There was a steady increase of population in the alluvial lands of the Red river and the Mississippi in Louisiana, and scattered plantations had been established along the west bank of the Mississippi in Arkansas and in northern Louisiana. Another important extension of the plantation system during the same decade occurred in a wide area of southwestern Georgia, tributary to the Chattahoochee and Flint rivers.<sup>57</sup> During the decade six counties in this region increased in population as a group from 5,678 to 42,269.<sup>58</sup>

Although for the most part a region of good cotton soils, east central Missis-

<sup>52</sup> For a vivid account by a contemporary witness, see Orr, "A Trip from Houston to Jackson, Miss. in 1845," in *Miss. Hist. Soc., Publications*, IX, 174-176.

<sup>53</sup> *Niles' Register*, LXIV, 373.

<sup>54</sup> Wilcox, Lowndes, Sumter, Perry, Macon, Russell, and Pickens.

<sup>55</sup> *United States Census*, 1830; 1840.

<sup>56</sup> Watkins, *King Cotton*, 256; *De Bow's Review*, VII, 41.

<sup>57</sup> For details, see *ibid.*, X, 67; *Southern Cultivator*, XVI, 336.

<sup>58</sup> Early, Macon, Marion, Randolph, Stewart, and Sumter.

Mississippi did not become a well developed plantation region until after the building of the Mobile and Ohio Railroad. It was necessary to haul products long distances to the Tombigbee or south to the upper waters of the Pearl river. Small quantities of cotton were grown for market, and some grain was produced, but, like the counties of southeastern Mississippi, the region was largely devoted to stock-raising, being commonly known as the "cow-counties."<sup>59</sup>

#### ANGLO-SAXON REOCCUPATION OF FLORIDA

With the retrocession of Florida to Spain at the close of the Revolutionary War the Province relapsed into economic stagnation. A zone along the northern border became a refuge for runaway slaves and undesirable whites from the United States, in spite of a Spanish regulation prohibiting the immigration of Americans. In this section, which contained about half of the few thousand inhabitants of the Province, a period of anarchy prevailed from 1812 to 1816, finally terminated by the establishment of a régime of lynch law maintained by the more orderly elements. During the period of disturbance, however, economic life had reached a low ebb, and the large herds of cattle had largely disappeared as a result of the depredations of the lawless elements.<sup>60</sup>

After the cession of Florida to the United States in 1819 a large part of the Spanish population left the State. In 1822 the total population was estimated at about 5,000. A large proportion were runaway slaves—some of whom, in turn, had become slaveholders—half-breeds, and Indians. Except for the tangle of overlapping land claims and the extreme uncertainty as to survey boundaries, the country was almost a virgin territory. Americans who surveyed conditions in the peninsula declared: "In the whole extent of East Florida, there are not five individuals who enjoy \$1,000 of rent, or territorial produce; and still more that on the banks of the St. Johns there are not three hundred acres of cultivated land, although there are forty inhabited houses."<sup>61</sup>

The opportunities of the new territory excited much interest, and there was a considerable immigration of Americans. The best lands, however, were still held by the Seminoles, whose power was not finally broken until the close of the fierce Indian wars from 1835 to 1842, which for a time deterred immigration. Very early the possibility of growing various subtropical products aroused the same interest as at the beginning of British occupation in the colonial period. The imaginations of prospective immigrants were excited by prospects of growing almonds, oranges, lemons, citrons, olives, coffee, sugar, cocoa, cochineal, sisal, palma Christi, New Zealand flax, arrowroot, sesame, silk, sea-island cotton, ginger, breadfruit, mangos, currants, tea, opium, Cuban tobacco, and various drugs and spices. In 1821 it was declared there were five planters south of the 27th parallel successfully growing coffee. There was much interest in sugar and

<sup>59</sup> *De Bow's Review*, VII, 41.

<sup>60</sup> Vignoles, *Observations upon the Floridas*, 20-27, 76.

<sup>61</sup> *Cahawba Press and Alabama State Intelligencer*, Apr. 1, 1822; cf. Giddings, *Exiles of Florida*, 34, 97.

many experiments, some of them successful.<sup>62</sup> However, cotton and tobacco proved to be the most important staples. As early as 1819 a large area of alluvial land along the Escambia river was brought into cultivation by American planters.<sup>63</sup> Between 1820 and 1830 the fertile "oak and hickory" uplands in the northern border of the State<sup>64</sup> began to be settled by cotton planters. The cotton exports of Florida in 1828-29 were only 4,146 bales, three years later they had mounted to 22,651 bales, and by the end of the decade 1830-1840 they were in excess of 100,000 bales.<sup>65</sup> The progress of northern Florida was also promoted by the development about 1830 of the cigar tobacco industry, already mentioned, and by the expansion during the fifth decade of the sea-island cotton industry. Throughout the ante bellum period herding of cattle and hogs on the vast areas of unoccupied lands was one of the most important industries. During the sixth decade the turpentine industry was revived. Corn and sweet potatoes were important food products for local consumption.<sup>66</sup>

#### ROUNDING OUT OF THE COTTON BELT AFTER 1840

Although by 1840 the main outlines of the "Cotton Kingdom" were filled in, except in Texas (See Fig. 11), the stream of slaveholders continued to pour into the newer regions not yet well settled. Development between 1840 and 1860 was especially rapid in central and northern Mississippi; along the Mississippi river, especially on the western bank; and along the streams flowing into the Mississippi from the west, including the Ouachita, Arkansas, White, and St. Francis river systems. In the thirties the bottom lands of the Arkansas were still in the log-cabin stage of development. Before 1860 these alluvial areas contained a well established plantation economy, although development was still far from complete. Considerable shipments of cotton occurred from the alluvial area of southeastern Missouri,<sup>67</sup> but this region did not see an important development until many years after the Civil War.

Before 1840 a few scattering plantations and fragmentary levees had been established in the great alluvial area in Mississippi known as the Yazoo Delta, but the region was still largely unoccupied because subject to overflow. The great flood of 1842 showed the need for concerted action, and county supervisors began to organize levee districts. The flood of 1858 made it necessary to enlarge and consolidate these local systems, and a district was formed to include practically the whole of the Delta. The levees thus constructed withstood the great

<sup>62</sup> *Alabama Republican* (Huntsville), Sept. 14, 1821; *Louisiana Gazette* (New Orleans), Sept. 9, 1824; *Cahawba Press and Alabama State Intelligencer*, Apr. 27, 1822; *Western Journal and Civilian*, VI, 179; United States Agricultural Society, *Journal*, VIII, 266; *Farmers' Register*, II, 1-3; Vignoles, *Observations upon the Floridas*, 94-100.

<sup>63</sup> Warden, *Account of the United States*, III, 34; *Farmers' Register*, II, 2; cf. *ibid.*, VI, 419.

<sup>64</sup> Comprising portions of Jackson, Gadsden, Leon, Jefferson, and Madison counties.

<sup>65</sup> *Niles' Register*, LXIV, 373; *De Bow's Review*, XVII, 428.

<sup>66</sup> *Southern Agriculturist*, new series, VI, 71; *De Bow's Review*, V, 12; VIII, 157; X, 411; *Western Journal and Civilian*, VI, 180-182. See above, p. 833.

<sup>67</sup> See letters from Arkansas, in *Kentucky Gazette* (Lexington), Dec. 5, 1835; *Louisiana Courier* (New Orleans), Aug. 14, 1830; Watkins, *King Cotton*, 268.

floods of 1861 and 1862, but the system was seriously disorganized and impaired by military occupation.<sup>68</sup>

Nearly all the important plantation districts west of the Georgia-Alabama boundary enjoyed a substantial increase in population in the decades between the beginning of commercial cotton or sugar cultivation and 1860. In nearly all of these districts there was also a steady increase in percentage of slave population (Table 34), representing not only an expansion of the plantation system and a displacement of the general farmers who had earlier settled in these regions but also probably an increase in the size of slaveholdings.<sup>69</sup>

The expansion of the plantation system up to 1840 was in the Gulf plains—a region well provided with navigable streams, the use of which was considerably facilitated by the development of steam navigation, beginning on the Mississippi

TABLE 34.—Percentages of slave population to total population in selected regions, by decades, 1810–1860<sup>1</sup>

Names of regions	Names of counties	Percentage of slaves to total population					
		1810	1820	1830	1840	1850	1860
Central Alabama.....	Sumter, Wilcox, Macon, Perry, Russell, Pickens, Lowndes	....	46.4	38.9	51.9	60.9	66.4
Tennessee Valley (Ala.).....	Limestone, Madison	20.2	42.2	48.3	50.2	52.2	54.3
Yazoo Delta (Miss.).....	Bolivar, Issaquena	....	....	....	71.6	89.1	89.2
West central Miss.....	Carroll, Yazoo, Warren	42.5	47.8	48.2	63.0	63.2	68.0
West central Miss.....	Hinds, Madison	....	....	39.4	68.8	70.0	74.0
Old Natchez region.....	Claiborne, Jefferson, Adams, Wilkinson	52.5	59.1	68.6	75.5	77.9	77.6
Northeastern prairie (Miss.)	Lowndes, Monroe, Noxubee	....	19.2	28.5	56.3	63.2	68.6
Short-leaf pine uplands (Miss.)..	Attala, Choctaw, Lafayette, Yalobusha	....	....	....	38.1	38.5	41.1
Louisiana sugar parishes.....	Assumption, W. Baton Rouge, Iberville, Jefferson, Lafourche, St. Mary, Terrebonne	31.5	40.5	54.5	56.1	50.6	8.05
Alluvial cotton parishes (La.)...	Carroll, Concordia, Madison, Tensas	54.6	68.1	77.6	79.9	84.0	86.2
Alluvial cotton parishes (La.)...	Pointe Coupée, Rapides	63.3	64.9	70.6	72.4	68.6	65.6
Upper Red River parishes (La.)..	Bossier, Claiborne, De Soto, Natchitoches	51.4	31.1	39.2	43.6	52.6	58.1
Alluvial cotton counties (Ark.)..	Chicot, Desha, Phillips	....	12.1	17.1	44.8	51.8	66.2
Arkansas River valley.....	Jefferson, Arkansas	12.2	14.1	24.1	35.0	45.8	50.7
Ouachita valley (Ark.).....	Ashley, Ouachita, Union	....	....	27.2	31.4	39.7	43.1
Red River valley (Ark.).....	Hempstead, Lafayette	....	21.4	26.4	50.3	44.8	43.2

<sup>1</sup> *United States Census*, 1840 to 1860.

in 1816.<sup>70</sup> The further rounding out of the Cotton Belt was greatly facilitated by the building of railroads. In 1831 a railroad five miles in length was built from New Orleans to Lake Pontchartrain, and in the same year a road from Richmond, Virginia, to Chesterfield—a distance of thirteen miles. In 1833 a railway was completed from Hamburg, South Carolina, via Augusta, to Charleston.<sup>71</sup> By 1840 a considerable number of short local lines had been completed or

<sup>68</sup> United States, Dept. Treas., Bur. of Statistics, *Commerce of the Mississippi and Ohio Rivers: Report on the Internal Commerce of the United States*, 1887, p. 241; Wade, "Lands of the Liquidating Levee Board, etc.," in *Miss. Hist. Soc., Publications*, IX, 277–280.

<sup>69</sup> See below, p. 916.

<sup>70</sup> Halle, *Baumwollproduktion*, I, 113.

<sup>71</sup> Phillips, U. B., *Transportation in the Eastern Cotton Belt*, Chap. III.

were under construction, destined during the next two decades to be pieced together into continuous lines leading to strategic commercial centers.<sup>72</sup> By the outbreak of the Civil War the South contained several important trunk lines, connecting many important agricultural regions more effectively with markets.

A significant aspect of railway building was the rivalry of the various ports for the trade of the hinterland. South Carolina and Georgia inaugurated ambitious programs of railway construction as a result of the rivalry of Charleston and Savannah for Western trade. In South Carolina lines were constructed connecting Columbia, Camden, Greenville, Spartanburg, and Abbeville with Charleston; and a branch line was built from Anderson Courthouse to Greenville—a connection which provided a continuous line from Charleston to Knoxville, Tennessee. A line from Columbia to Charlotte, North Carolina, tapped the fertile valleys of the Catawba and Yadkin rivers and furnished Charleston a connection with railways leading to northern cities.<sup>73</sup>

The geographical position of Georgia was central and pivotal, and her railway system was closely connected with those of neighboring States. By 1860 a continuous line, made up of numerous shorter lines, connected Augusta, Georgia, with northern cities, by way of Richmond. The Central Railroad connecting Savannah and Macon, the Georgia Railroad from Augusta to Atlanta, the Western and Atlantic connecting Atlanta with Chattanooga, the Macon and Western, and the Southwestern, supplemented by a number of branch lines, tapped the most important cotton regions of the State, connected Savannah with the farming regions of Tennessee and eastern Alabama, and opened up hitherto undeveloped regions to the advance of commercial agriculture.<sup>74</sup> Alabama was provided important connections with the Georgia railways and the Eastern seaboard by lines from Atlanta to West Point and from Montgomery to West Point. A second Eastern connection was furnished by the construction of the Alabama and Tennessee Railway from Selma, Alabama, to Rome, Georgia. A railroad from Mobile to Girard was planned to connect the Alabama port with the Georgia railways at Columbus.<sup>75</sup>

There was also considerable development in the other cotton States or in areas with which they were economically interrelated. In Tennessee railroads were constructed uniting Nashville and Memphis with Chattanooga, Knoxville, and their eastern connections. The Mobile and Ohio was designed to connect the city of Mobile with northeastern Mississippi and the rich valley of the Tennessee river, the trade of which had hitherto traversed the river route to New Orleans, and ultimately to furnish a continuous route to St. Louis and Chicago by way of the Illinois Central. Connection was supplied with Louisville by the

<sup>72</sup> For list of these lines in the Southwest, see Cotterill, "Beginnings of Railroads in the Southwest," in *Mississippi Valley Historical Review*, VIII, 325.

<sup>73</sup> *De Bow's Review*, III, 560; VII, 544; VIII, 244; IX, 556; XIII, 528; Phillips, U. B., *Transportation in the Eastern Cotton Belt*, Chaps. IV–VII; Meyer, MacGill, et al., *Transportation in the United States*, Chap. XV.

<sup>74</sup> *De Bow's Review*, III, 399; VII, 334, 533; VIII, 40, 88; X, 470, 572; XII, 669; Meyer, MacGill, et al., *Transportation in the United States*, Chap. XV.

<sup>75</sup> *De Bow's Review*, IV, 39; VII, 374; VIII, 171, 180; IX, 218; X, 473; XI, 159, 163; XII, 669; Meyer, MacGill, et al., *Transportation in the United States*, Chap. XV.

building of the Louisville and Nashville.<sup>76</sup> In Mississippi a railroad was constructed connecting Vicksburg with Brandon, and finally with Selma, Alabama, thus furnishing direct connection between the Mississippi river and the eastern seaboard. In Arkansas a railroad was built connecting Little Rock with Memphis, and another connecting Fulton, on the Red river, with Gaines Landing, on the Mississippi.<sup>77</sup>

The building of railroads stimulated the expansion of cotton into large areas hitherto not suitable for commercial production.<sup>78</sup> Another result was the diversion of trade from New Orleans, especially that from east and middle Tennessee, which henceforth went to Mobile or to Charleston, Savannah, and Richmond. The trade from the upper Mississippi to New Orleans was cut off by construction of the trunk lines and development of the lake route. New Orleans commercial authorities consoled themselves with the belief that they could still count on much of the bulky produce of the Mississippi valley and that the rapid increase of production in the valley would compensate for diverted trade.<sup>79</sup> A railway convention held at New Orleans in 1851 proposed nothing that could prove of great benefit to the city except the construction of railway connections with the upper Red river.<sup>80</sup>

In 1860 the total cotton production of the South was only about one third the average in recent years. The distribution, as compared with 1850, in bales of 400 pounds, was as follows:<sup>81</sup>

State	1859	1849	State	1859	1849
Mississippi.....	1,202,507	484,292	North Carolina.....	145,514	73,845
Alabama.....	989,955	564,429	Florida.....	65,153	45,131
Louisiana.....	777,738	178,737	Missouri.....	41,188	.....
Georgia.....	701,840	499,091	Virginia.....	12,727	3,947
Texas.....	431,463	57,596	Illinois.....	1,482	.....
Arkansas.....	367,393	65,344	Miscellaneous.....	216	772
South Carolina.....	353,412	300,901			
Tennessee.....	296,464	194,532	Total.....	5,387,052	2,468,617

In 1852 it was estimated that in the entire South about 800,000 Negroes were employed in the cotton industry.<sup>82</sup>

#### INVASION OF TEXAS BY THE PLANTATION SYSTEM

The first steps toward the expansion of the plantation system into Texas occurred early in the nineteenth century. Forays were made across the border

<sup>76</sup> *De Bow's Review*, IX, 535; X, 571; XI, 157; XII, 205.

<sup>77</sup> *Ibid.*, XI, 158-160; XXIII, 211.

<sup>78</sup> *Louisiana Courier* (New Orleans), Sept. 1, 1860.

<sup>79</sup> *Ibid.*, Nov. 15, 1855. On the influence of the desire to capture New Orleans trade by railway building, see Cotterill, "Beginnings of Railways in the Southwest," in *Mississippi Valley Historical Review*, VIII, 318; cf. also Russel, *Economic Aspects of Southern Sectionalism*, 97.

<sup>80</sup> *De Bow's Review*, XI, 214-217; XII, 319.

<sup>81</sup> *United States Census*, 1850, *passim*; 1860, *Agriculture*, pp. xciv, 189. Several States which showed a few scattering bales in 1850 or in 1860 are not included, but the totals are for the entire United States. The *Census* of 1860 gives 50,545 bales for North Carolina and 58,072 bales for Texas for 1850, these figures also being given in the *Compendium of the Seventh Census*, but not in the 1850 *Census*.

<sup>82</sup> Ellison, *Hand-Book of the Cotton Trade*, 18.

in 1813 and in 1819. In 1821 Moses Austin entered into a contract with the Spanish authorities for colonization along the lower Brazos. He died the same year, but his son, Stephen Austin, became the leader of the enterprise, and succeeded in establishing a nucleus of settlement. In 1825 other Americans obtained similar contracts, and started colonies.<sup>83</sup>

For a number of years it was a matter of doubt whether or not Texas was to become a plantation community. Up to the time of Austin's settlement the Spanish inhabitants were engaged principally in herding. There were few if any slaves and but a few thousand in all Mexico. There was a strong sentiment for the extinction of slavery, and it is probable that emancipation would have been effected but for the persistence of Stephen Austin, then at the capital to secure confirmation of his grant. Austin was able to secure only a modification of extreme emancipation. In 1824 a decree was issued prohibiting the slave trade, both domestic and foreign, but tacitly allowing the introduction of slaves by incoming settlers provided all children born on Mexican soil should become free at the age of fourteen. On the overthrow of Iturbide the law was annulled, but Austin was allowed to continue his project under the provisions of the old law. In 1824 Texas and Coahuila were formed into a State, and the constitutional convention leaned decidedly toward complete emancipation. Strong pressure from the Texas colonists secured a compromise by which the introduction of slaves was not prohibited until after a period of six months, but it was provided that no child should be born a slave. One tenth of the slaves must be emancipated whenever their ownership was transferred by gift or inheritance, and a slave was allowed to change masters voluntarily provided the new master agreed to pay his full value.<sup>84</sup> As enthusiasm for the rights of man began to cool these restrictions were soon modified. In 1828 an innocent-looking act was passed validating contracts for labor entered into in another State. This practically legalized slavery in the form of peonage contracts providing for subsequent emancipation, but on terms impracticable for the slaves to carry out. The Texans succeeded in evading further Mexican attempts at restriction until after the Texas Revolution of 1836, when slavery was legalized by the new constitution.<sup>85</sup>

American immigration to Texas did not proceed very rapidly before the Texas Revolution. Uncertainties respecting the status of slavery discouraged slaveholders, and the facilities for marketing a staple crop were inadequate for a number of years. In 1829 the cotton crop was only about 500 bales, and as late as 1835 between 3,000 and 4,000 bales.<sup>86</sup> Until Texas was admitted to the Union the planters were handicapped by the necessity of paying a duty on cotton shipped to New Orleans. As late as 1843 exports amounted to only about 15,000 bales.<sup>87</sup>

There does not appear to have been a strong tendency toward a plantation husbandry among the early settlers. Most of the slaveholdings prior to 1830 were small, and the total number of slaves not large. In 1834 there were about

<sup>83</sup> Foote, *Texas and the Texans*, I, Chaps. IX-XI; McKittrick, *Public Land System of Texas*, 30-32.

<sup>84</sup> Bugbee, "Slavery in Early Texas," in *Political Science Quarterly*, XIII, 390-395, 400-408.

<sup>85</sup> *Ibid.*, 408-412, 648-655, 661.

<sup>86</sup> *De Bow's Review*, VI, 153. The above figures do not include the crop of the Red River district.

<sup>87</sup> Watkins, *King Cotton*, 215-216.



1,000 Negroes in Austin's colony and an equal number in the settlements about Nacogdoches.<sup>88</sup> Many of these pioneers adapted themselves to the Mexican economy—herding supplemented by farming for domestic consumption. It is probable that the sentiments of many were well expressed by a young man with whom Olmsted conversed during his journey twenty years later:<sup>89</sup>

"The young man himself owned probably many hundred acres of the prairie and woodland range about him, and a large herd of cattle. He did not fancy taking care of a plantation. It was too much trouble. He was a regular Texan, he boasted, and was not going to slave himself looking after niggers. Any man who had been brought up in Texas, he said, could live as well as he wanted to, without working more than one month in the year. For about a month in the year he had to work hard, driving his cattle into the pen, and roping and marking the calves; this was always done in a kind of frolic in the spring—the neighboring herdsmen assisting each other. During the rest of the year he hadn't anything to do. . . . He raised a little corn; . . . When he wanted to buy anything, he could always sell some cattle and raise the money; it did not take much to supply them with all they wanted."

After the Texas Revolution planters with their slaves began to move to Texas in large numbers, settling on the alluvial lands of the Brazos, Trinity, Colorado, and Red rivers. By the late years of the fifth decade regular steamship connection with New Orleans was established, and extension of settlement on the Brazos and Trinity was facilitated by the development of steamboat navigation.<sup>90</sup> From 1840 to 1860, and particularly from 1850 to 1860, the "Texas fever" developed almost into a delirium. Newspapers throughout the South were full of accounts of the wonderful fertility of Texas land, the salubrity of the climate, and the enormous fortunes made in planting cotton. Texas land companies were formed in various parts of the United States, and land speculation, facilitated by the loose land policy of the State, became the order of the day. Throughout the South thousands of planters caught the contagion, sold out their plantations, and moved to Texas. There was also a very substantial immigration of farmers.<sup>91</sup> From 1850 to 1860 the total population increased from 212,592 to 604,215, and the slave population from 58,161 to 182,566; while cotton production increased from 58,072 to 431,463 bales.<sup>92</sup> Before the Civil War, however, the plantation districts were still, for the most part, east of the fertile black prairie. This region, which became the most important cotton producing portion of the State after the Civil War, was occupied principally by herdsmen and small self-sufficing farmers. Its full development awaited the introduction of railroads. The principal plantation districts before 1860 were along the lower courses of the rivers flowing into the Gulf, on the Red river, and in the "oak and hickory" uplands west of the coastal plain.

<sup>88</sup> Bugbee, "Slavery in Early Texas," in *Political Science Quarterly*, XIII, 662-665.

<sup>89</sup> *Journey through Texas*, 101.

<sup>90</sup> *American Farmer*, 1 series, XIV (1832-3), p. 127; *De Bow's Review*, IV, 320; IX, 197.

<sup>91</sup> United States Agricultural Society, *Journal*, VIII, 189; *De Bow's Review*, VI, 153; VIII, 63; XIV, 69; Phillips, U. B., *Plantation and Frontier*, II, 257; cf. Barker, "Notes on the Colonization of Texas," in *Mississippi Valley Historical Review*, X, 143, 152.

<sup>92</sup> *United States Census*, 1850, p. 504; 1860, *Population*, 486; *ibid.*, *Agriculture*, Intro., p. xciv.

## CHAPTER XXXVIII

### AGRICULTURE IN THE WAKE OF EXPANSION

Reaction of Western Expansion on the Older Agricultural Regions, 908. Widening Area of Soil Exhaustion, 910. Redundancy of Slave Population, 911. Depressing Influence of Western Competition, 912. Attempts at Agricultural Reorganization, 915. General Farming Regions East of the Blue Ridge, 917.

#### REACTION OF WESTERN EXPANSION ON THE OLDER AGRICULTURAL REGIONS

The rapid expansion westward of Southern agriculture left in its wake acute economic problems, some of which are suggested in earlier chapters. While there were areas west of the Appalachians which were beginning to feel the consequences that came to communities left behind in the westward sweep of settlement, the tendencies described in the present chapter had their principal manifestations east of the Blue Ridge.

At the opening of the nineteenth century, with the exception of the portions of the Maryland Piedmont and northern Virginia which had already adopted the Pennsylvania system of farming, practically all of Maryland and Virginia east of the Blue Ridge had been or were being swept by the devastating scourge of tobacco planting. When new ground was no longer available, those who still clung to tobacco cowpenned small tracts for tobacco while continuing to raise scanty crops of corn and wheat without fertilization. These systems, if such they may be called, were generally associated with the keeping of as many live-stock as the available range would permit, including the scanty forage in the fields thrown out to "rest."<sup>1</sup> Tobacco cultivation had virtually disappeared from the Eastern Shore, and during the preceding half century had been gradually displaced in Tidewater Virginia by grain cultivation. The shift in the latter region was completed as a result of the interruptions of trade and low prices occasioned by the second war with England.<sup>2</sup> Middle Virginia was in various stages of the tobacco régime. The northern counties were already beginning to be redeemed by the clover-plaster-wheat economy, and similar practices were making headway along the eastern border of the Blue Ridge. Elsewhere, however, prevailed the primitive economy described above.<sup>3</sup>

The abandonment of tobacco in eastern Virginia and eastern North Carolina, made necessary by soil exhaustion and low prices, did not bring prosperity. Corn and wheat were far less profitable than the tobacco economy had been when soils were fresh, and scarcely less destructive of soil fertility. Year after year the nearly exhausted fields were scratched with light trowel or shovel plows to

<sup>1</sup> See above, p. 217.

<sup>2</sup> *Farmers' Register*, III, 748-750; IV, 1; *Southern Planter*, XII, 135. See above, p. 766.

<sup>3</sup> See account of early agricultural conditions in Albemarle County, in Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 51-53; Washington, *Diaries (Fitzpatrick)*, IV, 197.

obtain yields of 6 to 12 bushels of corn and 4 to 8 of wheat.<sup>4</sup> Poverty, deterioration, and despairing inertia spread over the face of the country like a pall. Many of the counties showed a decrease in population for several decades following the census of 1790. Production also declined, and it was declared in 1833 that the entire product of the State did not exceed in value the exports of eighty or ninety years earlier, when the population was but a sixth and the occupied area scarcely a third of what they were in 1833.<sup>5</sup>

While similar conditions prevailed on both shores of the Chesapeake in Maryland, and in northeastern North Carolina, these areas probably suffered less severely than did eastern Virginia. The Western Shore of Maryland did not abandon tobacco, but before the beginning of the post colonial period had fitted it into a system of general farming, which was progressively influenced by the sounder types of farming of Pennsylvania. The Eastern Shore also began to benefit early by Northern agricultural practices. Eastern North Carolina introduced cowpeas as a means of restoring or maintaining fertility. In both regions agriculture was less commercial and capitalistic than it had been in eastern Virginia, and more or less coördinated with fishing, lumbering, or household industry.

Southeastern North Carolina and eastern South Carolina and Georgia suffered less severely than the above mentioned regions, for the plantation economy was based primarily on alluvial soils, refertilized in rice areas by periodic floodings. Thus, the planters were enabled to continue the production of the staple products which supported the structure of capitalistic agriculture previously established. When the sea-island cotton soils showed signs of depletion, the planters were able to employ their numerous slaves in the necessary labor of fertilizing the soil with marsh mud and other materials.<sup>6</sup> The first two decades of the century were in general a period of prosperity in eastern South Carolina and Georgia, due to the high prices of sea-island cotton, development of the tide swamps, extension of the water culture of rice, improvements in rice machinery, and the expanding domestic and foreign market for rice.<sup>7</sup> The first half of the nineteenth century, therefore, was a period of intensification of the plantation system and of plantation institutions in eastern South Carolina and Georgia. In 1840 it was declared that lands on the sea islands had more than doubled in value in a short time. The diversified economy and homespun self-sufficiency of the earlier time gradually gave place to extreme commercialism. The yeomen were more and more displaced by larger planters. The artisan class of Charleston found themselves more and more subjected to the unbearable competition of slave labor, and succumbed to the lure of western migration.<sup>8</sup> Methodism, the

<sup>4</sup> Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 147, 155, 157-163; Taylor, J., *Arator*, 170; Virginia, Board of Agriculture, *Report (House Journal and Documents, 1842-43, Doc. 12)*, pp. 6, 23-25; *Farmers' Register*, I, 232; II, 612; Parkinson, *Tour*, I, 82, 192, 200-202, 226, 228; La Rochefoucauld, *Travels*, III, 113-115, 142; *North Carolina Planter*, I, 4.

<sup>5</sup> Virginia State Agricultural Society, *Journal of Transactions*, I, 13-14; extract from "Review of the Slave Question," in *Farmers' Register*, I, 39.

<sup>6</sup> See above, p. 806.

<sup>7</sup> See above, pp. 724-732.

<sup>8</sup> *Carolina Planter* (1840), p. 9; *Carolina Planter* (1844-5), I, 60; South Carolina, Agricultural Survey, *Report* (Ruffin, 1843), p. 72; Jervey, *Robert V. Hayne*, 131, 201.

faith of the humbler classes, which in the earlier time had been "as favorably received as anywhere else in the United States" was gradually "reduced to a condition of positive obscurity," and its ministers "lay under the ban of suspicion as disorganizers who could not be trusted among the negroes."<sup>9</sup>

#### WIDENING AREA OF SOIL EXHAUSTION

In the upland areas from Virginia to Georgia the expansion of cotton and tobacco left behind an ever-widening circle of lands suffering from soil exhaustion. Year after year the old lands were depleted until it was no longer profitable to farm them. By 1850 a large proportion of Virginia and Maryland east of the Blue Ridge was a waste of old fields and abandoned lands covered with underbrush and young cedars.<sup>10</sup> The virtual disappearance of the indigo industry and of the inland swamp rice industry were severe blows to middle South Carolina, by no means entirely compensated by the rise of cotton. In 1839 it was stated that lands that had sold after the Revolution for guineas were not worth as many dollars.<sup>11</sup> The first three decades after the introduction of cotton was a period of financial prosperity and rapid development in upper South Carolina and middle Georgia, but by 1820 the uplands first devoted to cotton were gullied and bare of verdure, or covered with a thin growth of broom sedge; and the evil spread progressively over the areas later occupied. By 1825 farmers in middle North Carolina had been forced to occupy the poorer ridge lands, formerly believed not worth cultivation.<sup>12</sup>

In many regions the economic depression produced real want and suffering. A vivid picture of desolation, probably colored by prejudice, was painted by an ex-slave who was carried through Virginia by a slave dealer about the year 1805:<sup>13</sup>

"For several days we traversed a region, which had been deserted by the occupants—being no longer worth culture—and immense thickets of young red cedars now occupied the fields, . . .

"I am convinced, that in nine cases in ten, the hardships and sufferings of the colored population of lower Virginia is attributable to the poverty and distress of its owners. In many instances, an estate scarcely yields enough to feed and clothe the slaves in a comfortable manner, without allowing anything for the support of the master and family."

The unhappy conditions prevailing in the tidewater and eastern piedmont areas were attributed by many Northern and European travellers to slavery. Southern politicians attributed the woes of "poor old Virginia" to the tariff, Jeffersonian democracy, Federal banking policy, exploitation of agriculture by the mer-

<sup>9</sup> Wightman, *William Capers*, 136-139.

<sup>10</sup> See above, p. 446. Ball, *Slavery in the United States: A Narrative of the Life and Adventures of Charles Ball, Black Man*, 37, 42; cf. *ibid.*, 55. For the evidence concerning soil exhaustion in Virginia and Maryland, see Craven, *Soil Exhaustion in Virginia and Maryland*, especially 56-58, 63-66, 82-85.

<sup>11</sup> *Farmers' Register*, VI, 436.

<sup>12</sup> *American Farmer*, 1 series (1819-34), I, 218; V, 201; IX, 81; XIV, 76; XV, 20; *Farmer's Advocate*, I, 218; *The Arator*, I, 38; Ruffin, *Essay on Calcareous Manures*, 12; *American Agriculturist*, III, 118; *Cultivator*, V, 155; *Country Gentleman*, II, 278; *Southern Cultivator*, I, 108; III, 12; Mitchell, E., *Agricultural Speculations* (N. C., Bd. of Agric., *Papers*, I), 51.

<sup>13</sup> Ball, *Slavery in the United States: A Narrative of the Life and Adventures of Charles Ball, Black Man*, 37, 44; cf. Brissot de Warville, *New Travels in the United States*, 288.

chants, undue tax burden imposed on farmers, and interruptions to trade culminating in the War of 1812.<sup>14</sup> At best these alleged causes were but indirect and contributory. If governmental policies were responsible, primary emphasis should be given to those which made land so abundant that expansion and soil exhaustion became prevailing characteristics of Southern agriculture.<sup>15</sup>

#### REDUNDANCY OF SLAVE POPULATION

To the direct impoverishment due to impaired soil fertility were added the evils of a redundant slave population.<sup>16</sup> When eastern Virginia abandoned tobacco cultivation, a large proportion of the slaves formerly needed to cut down and clear the forest and carry on the intensive operations of tobacco cultivation were not required for the relatively extensive economy of grain production. The progressive introduction of horse husbandry, the adoption of threshing machines and other labor-saving devices, and the gradual substitution of factory goods for the products of household industry increased the disparity between the supply of slaves and the need for their services. Indeed, superabundance of labor made the coastal regions from Maryland to Georgia slower than the back country in adopting labor-saving devices.<sup>17</sup>

Thus, in the late years of the eighteenth century and the early decades of the nineteenth, instead of being a source of profit large holdings of slaves were an intolerable burden. The principal object of many planters was to make a living for their numerous "family." The proportion of old Negroes and children increased as the planters ceased to buy fresh stock and the able-bodied slaves began to be sold to the lower South. On Washington's plantation only a third of the four hundred Negroes were capable of working in the fields. In some seasons, according to Parkinson, Washington did not "raise so much from his land as would keep his people, with the addition of a very numerous fishery." It was then considered scarcely reputable to sell a slave except as a punishment.<sup>18</sup> In 1794 Washington wrote:<sup>19</sup>

"Were it not then that I am principled against selling negroes, as you would do cattle at a market, I would not in twelve months hence, be possessed of a single one as a slave. I shall be happily mistaken if they are not found to be a very troublesome species of property ere many years have passed."

Some of the less scrupulous planters, however, began to dispose of their slaves in the far South. One profane old planter, who sold a slave now and then in order to support the remainder, swore that his slaves should not eat him, but rather, one another.<sup>20</sup>

<sup>14</sup> Garland, *John Randolph of Roanoke*, II, 344-346; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 147-155.

<sup>15</sup> See Chap. XIX.

<sup>16</sup> *Farmers' Register*, V, 306; *North Carolina Farmer*, III, 78. See above, p. 450.

<sup>17</sup> *Southern Planter*, XII, 163.

<sup>18</sup> Chastellux, *Travels in North America*, II, 197; Parkinson, *Tour*, II, 425, 429; La Rochefoucauld, *Travels*, II, 445; Ball, *Slavery in the United States: A Narrative of the Life and Adventures of Charles Ball, Black Man*, 45.

<sup>19</sup> Letter reprinted in Phillips, U. B., *Plantation and Frontier*, II, 56.

<sup>20</sup> *Farmers' Register*, II, 612.

## DEPRESSING INFLUENCE OF WESTERN COMPETITION

Next to soil exhaustion, the foremost cause of the undoing of the older communities was Western competition. Primarily, this consisted of commodity competition as manifested in the prices of the great Southern staples. Westward expansion brought into use lands that were more fertile than the regions first employed. The contrast was far greater where the scourge of the one-crop system had depleted the soils of the old tobacco and cotton regions. In the level lands of the alluvial or prairie regions, free from stumps and rocks, it was possible to cultivate a larger area per hand than was practicable in the rolling lands of the upper Carolinas and Georgia.<sup>21</sup> Many of these Western districts were near navigable rivers, convenient to the great exporting cities; while many Piedmont planters, before the introduction of railways, were compelled to haul their commercial product long distances over miserable roads.<sup>22</sup> Above all, the lands of the West were cheap, and their superiority was not at first reflected in their value. These various conditions enabled the Western planter to produce cotton or tobacco profitably at prices which for his Eastern competitors would not cover costs.<sup>23</sup>

A vital phase of Western competition, already mentioned, was the tendency of the Southwest to overbid the older planting regions for their labor force. In 1853 it was declared that planters in the Southwest could pay for slaves almost twice as much as the majority of Virginia planters could afford for plantation employment. About 1847, on the basis of a five-year average production of salable commodities, it was estimated that the productivity of slave labor in Louisiana was four times that of Virginia.<sup>24</sup> Many of the older cotton producing regions, as already noted, suffered from a similar disadvantage.<sup>25</sup> Tobacco especially was not sufficiently profitable to withstand the superior competition of cotton and sugar for the labor supply. Under normal conditions an average hand could work 2 acres of tobacco, with a gross yield of 1,600 pounds, besides making his provisions. A similar hand could work 8 to 10 acres of cotton in the Southwest, besides making provisions. Eight acres of cotton, averaging 250 pounds of lint to the acre, gave a total product 20 per cent more in weight than the product of a hand in the cultivation of tobacco, but pound for pound cotton normally brought a higher price than the ordinary grades of tobacco. Moreover, the yield of cotton on fresh alluvial lands in the West frequently was double that assumed. A hand could produce from 3,000 to 5,000 pounds of sugar, which sold at 5 to 7½ cents a pound.<sup>26</sup> Even as early as 1836, before the enormous rise in the prices of slaves that occurred after 1845, it was stated that under the most favorable conditions it was impossible for Virginia planters to secure more than 6 to 8 per cent on their investment. Under ordinary conditions 2 or 3 per cent

<sup>21</sup> See p. 707.

<sup>22</sup> *Southern Planter*, VII, 257.

<sup>23</sup> See above, p. 477.

<sup>24</sup> *Farmers' Register*, II, 763; address of James C. Bruce to the Mecklenburg and Granville Agricultural Clubs, July 4, 1847, in *North Carolina Farmer*, III, 77-85.

<sup>25</sup> See above, p. 709.

<sup>26</sup> See above, pp. 747, 750.

might be made by close economy and good management; but in a large number of cases the planter found it difficult to meet his expenses.<sup>27</sup> The planters of the older regions might resist for a time the economic pressure of this competition; but gradually many were forced to sell their slaves or to emigrate with them.

Although in the earlier years the demand of the Southwest for slaves appeared rather a boon than a disadvantage to the overstocked planters of Virginia and Maryland, the gradual draining off of slaves, combined with increased activity in railway building and other lines of industry, finally created a scarcity of labor in Virginia and Maryland at the same time that these States were making a determined effort to diversify their industry and attract Western trade by internal improvements. Every industry was seriously affected by the scarcity of laborers.<sup>28</sup> The high prices of slave labor made it difficult for the planters of the older regions to readjust their agriculture and restore the lost fertility of their lands. However much they might desire to employ labor in hauling fertilizers and to practice rotation of crops, the pressure of Western competition, lowering the price of cotton and tobacco, frequently made it unprofitable to employ such methods. In 1854 this difficulty was described by Hildreth as follows:<sup>29</sup>

"As it is, with all their slaves employed in scourging out of the land the greatest immediate produce, their expenses exceed their incomes, and they are running into debt every year. They are in no condition to risk the loss or curtailment of a single crop by changing the established method of cultivation, and attempting the introduction of improvements.

"More yet, it is positively bad economy for a Virginia planter to undertake the improvement of his estate. . . . The profits which he can possibly derive from slave labor will not warrant him in paying so high a price. . . . Even as regards the value of slaves already in the planter's possession, it is a much more profitable operation to emigrate with these slaves to Mississippi or Louisiana, and there to employ their labor in raising cotton, and *killing* land, than to attempt the improvement of the worn out lands at home."

In the last years of the period scarcity of labor was being keenly felt in Virginia. In 1859 Edmund Ruffin asserted:<sup>30</sup>

"It is a fact, known to every man of observation and intelligence, that labor is greatly deficient in all Virginia, and especially in the rich western counties, which, for want of labor, scarcely yet yield in the proportion of one tenth of their capacity. There is scarcely a farm in Virginia on which more slave labor is not needed, and could be profitably employed in the improvement and tillage of the fields. For large spaces, ten times the present number of slaves are required, and (if bought at low price) could be advantageously employed, for both private and public interests."

Indeed, in the last years of the sixth decade the demand for labor in railway construction, mining, lumbering, and manufacturing in the eastern border States

<sup>27</sup> *North Carolina Farmer*, III, 84; Martin, J., *Gazetteer of Virginia*, 100.

<sup>28</sup> *Southern Planter*, XIII, 23; *De Bow's Review*, XXVII, 275; United States, Patent Office, *Annual Report*, 1848, p. 495; Olmsted, F. L., *Cotton Kingdom*, I, 111-115; *American Farmer*, 1 series (1821-8), III, 340; VIII, 206; IX, 81, 91. See above, p. 934.

<sup>29</sup> *Despotism in America*, 129.

<sup>30</sup> *De Bow's Review*, XXVI, 656.

noticeably checked the flow of slave labor to the lower South.<sup>31</sup> In answer to the argument that the drain of slaves to the Southwest and the high prices obtained were beneficial to Virginia and Maryland, Ruffin pointed out that even under the assumption that the seller was benefited, the other planters who did not sell suffered from the high prices they must pay in order to expand their industry, as well as from the resulting depression in land values. Even if the ultimate result should be the substitution of free labor for slave labor in Virginia, the transition would be slow and infinitely costly, involving nearly complete paralysis of industry.<sup>32</sup>

The older States also suffered from the continual drain of white population and property by emigration, and from the depression in land values due to the dumping of estates on the market.<sup>33</sup> In 1837 a memorial addressed to the Maryland legislature contained an estimate that within the last eighteen months property to the value of nearly \$1,500,000 had been carried away from two counties of the Western Shore, Charles and St. Marys, not counting the heavy decrease in the value of real estate.<sup>34</sup> In the same year a Virginian wrote, "Emigration is here raging with all the strength of fanaticism, and nothing else can be talked of but selling estates, at a great sacrifice, and '*packing off*' for the '*far west*.'" Even more serious was the heavy drain of yeomen farmers, farm laborers, and artisans, who sought to escape from the uncomfortable environment of large plantations and the competition of slave labor.<sup>35</sup>

The difficulties experienced by the planters of the older border States from soil depletion, Western competition, and emigration were intensified by the series of protracted price depressions of their principal marketable crops, which in turn were largely the result of Western expansion. From 1810 until near the close of the War of 1812, as we have noted, tobacco was virtually a drug on the market. The four years of good prices from 1815 to 1819 were accompanied by frenzied speculation, overcapitalization, expanded indebtedness, and extravagance, followed by the panic of 1819 and a long period of depression and liquidation.<sup>36</sup> The period 1823-1833 inclusive was one of almost unvaryingly low prices of tobacco. This synchronized fairly closely with a period from 1819 to 1834 inclusive when wheat prices were generally below average, and a period from 1823 to 1831 inclusive of low corn prices except for two years of low yields. Wheat growers also suffered severely from the ravages of the Hessian fly, especially during the earlier decades.<sup>37</sup> By 1833, therefore, agriculture in eastern Virginia, Maryland, and North Carolina had reached an extremely low ebb.<sup>38</sup> The high

<sup>31</sup> *De Bow's Review*, XVI, 443; Olmsted F. L., *Cotton Kingdom*, I, 111, 140; cf. Bruce, K., "Slave Labor in the Virginian Iron Industry," in *William and Mary Quarterly*, 2 series, VII, 25.

<sup>32</sup> *De Bow's Review*, XXVI, 649-656.

<sup>33</sup> Fisher, C., *Report on the Establishment of Cotton and Woollen Manufacturies* (N. C., Bd. of Agric., Papers, III), 47; *Farmer's Advocate*, I, 35; Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 149, 155; *Farmer and Gardener*, III, 321; Joyce, *Letter from Caroline County, Virginia* (Richmond Daily Dispatch, Aug. 16, 1877); Hildreth, *Despotism in America*, 126.

<sup>34</sup> *Farmer and Gardener*, III, 321.

<sup>35</sup> *Farmers' Register*, III, 476; IV, 707.

<sup>36</sup> *Ibid.*, V, 363. See above, p. 766.

<sup>37</sup> See above, pp. 812, 817, and Appendix, Tables 50 and 51.

<sup>38</sup> *Farmers' Register*, I, 39, 63, 232.



prices from 1834 to 1837 afforded another interlude of doubtful advantage, since it stimulated overexpansion, overcapitalization, extravagance, and increased indebtedness as an unfortunate preparation for another decade or more of price depression for tobacco, wheat, and corn.<sup>39</sup>

The breaking off of the British mercantile connection after the War of 1812 was followed by a period of uncertain credit conditions that proved a serious handicap to the farmers. Thus, in 1828 a special committee of the North Carolina House of Commons estimated that the people of North Carolina owed not less than \$10,000,000, mostly contracted when prices were high. The balance of trade had gone greatly against the State. Notes of local banks, which circulated locally as money, were discounted at 4 to 5 per cent in Northern money centers. Consequently issues of the Fayetteville branch of the Bank of the United States were employed to meet extra-State payments, while notes of local banks were employed in meeting obligations to the Bank of the United States. The latter quickly presented the notes to the local banks for collection, instead of reissuing them, thus imposing a continual run on the local banks, forcing them to obtain funds at a loss of 4 or 5 per cent to meet these demands. As a result, some of the local banks had become seriously embarrassed, and credit available to farmers and business men was seriously restricted.<sup>40</sup>

#### ATTEMPTS AT AGRICULTURAL REORGANIZATION

The hardships and handicaps experienced by the planters and farmers east of the Blue Ridge gradually awakened many of them to the necessity of a drastic readjustment. John Taylor's writings and example furnished the first great impulse to the adoption of better farming methods. In showing the Tidewater farmers how to grow clover on their depleted soils by using the abundant supplies of marl, Edmund Ruffin contributed an even greater impulse to the slowly increasing momentum of agricultural improvement. Both Taylor and Ruffin were influential in spreading the gospel of agricultural reform, in dissipating the spirit of gloom and despair which had settled over the country, and in disseminating the knowledge of numerous methods of agricultural improvement in addition to their particular hobbies. The efforts of the two great leaders were seconded by other less influential reformers.<sup>41</sup> Although change to a less wasteful system was rendered difficult by scarcity of capital and by credit obligations and the overseer system, which forced the continuance of one-crop systems, nevertheless, little by little the spirit of improvement gained momentum. Despair gave way to hope and to the belief that it was possible to achieve a measure of prosperity without emigration.<sup>42</sup> The widespread adoption of the numerous improvements already mentioned,<sup>43</sup>—especially the introduction of clover and

<sup>39</sup> See above, pp. 767, 812, 817.

<sup>40</sup> Fisher, C., *Report on the Establishment of Cotton and Woolen Manufacturies* (N. C., Bd. of Agric., *Papers*, III), 45–47.

<sup>41</sup> See above, p. 780.

<sup>42</sup> Cabell, "Post-Revolutionary History of Agriculture in Virginia," in *William and Mary Quarterly*, XXVI, 158–165; *Southern Planter*, II, 17, 19; Virginia State Agricultural Society, *Journal of Transactions*, I, 12–14, 112–118; *Farmers' Register*, I, 265, 606; V, 305.

<sup>43</sup> See above, Chap. XXXIII.

systematic rotations, subordination of tobacco to a system of general farming with tobacco as one of the cash crops, adoption of deep plowing and horizontal plowing, systematic composting, use of calcareous manures and commercial fertilizers, development of new varieties of crops and improved breeds of livestock, and the more general employment of horse husbandry and labor-saving devices—were contributing with steadily increasing momentum to the regeneration of agriculture in the eastern border States.

The progressive tendencies were facilitated by a number of other economic changes, already mentioned, which may be briefly summarized. The subdivision of estates and development of smaller farms and plantations probably made for greater efficiency, especially when the new units were occupied by Northern immigrants, who came to parts of Virginia, North Carolina, and Tennessee bringing new energy and methods.<sup>44</sup> The sale of slaves to the Southwest provided additional income and reduced the burden of maintaining a surplus stock. A good deal of rich alluvial land, especially in North Carolina, was brought into cultivation by drainage. The tobacco industry was greatly aided by the development of domestic manufacturing with the resulting demand for the lower grades and increased discrimination as to quality, which in turn stimulated improved methods of curing.<sup>45</sup> Railway building was an important element in the economic revival, opening up sections remote from market, increasing the farm price of their products, and enabling them to achieve a greater degree of commercialism and to import necessary fertilizers. In Virginia and North Carolina numerous local lines were built, and before the Civil War, as we have noted, a continuous line connected northern cities with Augusta, Georgia, by way of Richmond and Fredericksburg. Another line connected this road with the Great Valley at Staunton. The Virginia and Tennessee Railroad was built from Richmond to Bristol, Tennessee, via Lynchburg. A number of canals had been constructed, including the Chesapeake and Ohio and the James River and Kanawha, each extending approximately two hundred miles westward from the sea.<sup>46</sup> The rise of the factory system released a good deal of labor formerly required for local handicrafts and household industry, and provided domestic markets. Finally, as we have noted, the increased demand for labor in railway building and the increasing industrialization of the border States furnished a means of local employment for the hitherto redundant supply, checked the flow to the Southwest, and even stimulated some immigration.<sup>47</sup> As a result of these changed conditions and of the generally excellent prices of the principal farm products in the last decade of the period, the eastern border States found themselves on the eve of the Civil War experiencing a measure of prosperity which they had not known, except for brief intervals of frenzied speculation, since the outbreak of the Revolutionary War. It was even noted that emigration to the West had greatly slackened.<sup>48</sup>

<sup>44</sup> *Farmers' Register*, II, 655; VII, 210; *Southern Planter*, V, 11, 161. See pp. 833, 920.

<sup>45</sup> See above, pp. 641, 771.

<sup>46</sup> *Southern Planter*, I, 119; *De Bow's Review*, VIII, 87; XII, 33; XIV, 87; cf. Phillips, U. B., *Transportation in the Eastern Cotton Belt*, 17-19; Meyer, MacGill, et al., *Transportation in the United States*, Chaps. VIII, XV. Concerning development of transportation in the Cotton Belt, see Chap. XXXVII.

<sup>47</sup> *Southern Planter*, XII, 163; XIII, 23. See also above, p. 913.

<sup>48</sup> *The Arator*, I, 120.

The evil effects of agricultural expansion began to be manifested somewhat later in the eastern part of the upland cotton belt than in the eastern border States. Nevertheless, throughout the regions that were in the wake of expansion there were similar earnest attempts at readjustment. About the beginning of the fourth decade low prices of cotton stimulated a tendency in the South Carolina up-country to raise a larger proportion of their supply of livestock and to buy less from Kentucky and Tennessee.<sup>49</sup> The movement for agricultural readjustment was much stronger during the period from 1840 to 1850. Meetings were held to discuss evils and remedies. The agricultural papers were filled with articles analyzing the causes of economic distress and suggesting improvements. Some urged education; others the abandonment of the overseer system. Numerous suggestions were made for the conservation of soil fertility. Economy was preached on every hand. Hundreds of articles were written advocating the planting of less cotton and the concentration of the energies of the plantation labor force on raising grain and stock and manufacturing clothing, shoes, and other necessities.<sup>50</sup> Even in the Southwest many planters found it profitable to raise all of their provisions. A larger acreage was planted in grain, and planters began to produce their own meat. Interest was aroused in stock raising, and new breeds introduced.<sup>51</sup> There was also a tendency to adopt new staples. In southern Virginia, after 1825, cotton was largely substituted for tobacco. There was a tendency in the border States, already noted, to substitute small grain for tobacco. During the depression of the fifth decade wheat was being substituted for cotton in parts of the up-country of the Carolinas. In Louisiana many cotton planters abandoned cotton in favor of sugar production.<sup>52</sup> Although much of the progress toward diversification was checked by the higher prices of cotton in the last decade of the period, some of the technical progress was permanent. Various projects for the encouragement of nonagricultural industries, the improvement of transportation, and the creation of a home market received a due share of public attention.<sup>53</sup> There was a general movement for financial retrenchment. Farmers restricted the scope of cotton planting, discharged extravagant overseers, curtailed personal expenditures, and looked more closely after their own business. Visits to Northern watering places became less in vogue.

#### GENERAL FARMING REGIONS EAST OF THE BLUE RIDGE

Before the close of the ante bellum period the various economic conditions already described had produced many contrasts in the agriculture of the various regions of general farming east of the Blue Ridge.<sup>54</sup> (See Table 35.)

<sup>49</sup> *Southern Agriculturist*, III, 534.

<sup>50</sup> For a few typical instances out of an almost limitless number that might be cited, see *Southern Agriculturist*, II, 267, 411; *American Farmer*, 1 series (1827-9), IX, 347; X, 34, 39, 89-91; *American Agriculturist*, II, 51; IV, 143; *Southern Cultivator*, I, 68; III, 91; IV, 18.

<sup>51</sup> *Southern Agriculturist*, I, 62; III, 534; *Agriculturist*, III, 62; *Cultivator*, I, 84; V, 93; United States, Patent Office, *Annual Report*, 1848, pp. 505, 508; *Southern Cultivator*, IV, 153; *De Bow's Review*, XII, 584.

<sup>52</sup> *American Farmer*, 1 series, VII (1825-6), pp. 250, 308, 316; *Southern Agriculturist*, I-IV, *passim*; *De Bow's Review*, VII, 92; VIII, 34; IX, 118; *Southern Cultivator*, VI, 169; XVI, 76; United States, Patent Office, *Annual Reports*, 1845, p. 901; 1848, p. 156.

<sup>53</sup> See Chap. XXXIX.

<sup>54</sup> The principal regions east of the Blue Ridge growing cotton, rice, and tobacco have been discussed in earlier chapters.

In Maryland the counties of the Western Shore continued to cling to the tobacco industry, and slaves were more numerous than in other sections of the State, although generally in small holdings. By the opening of the period, as we have noted, tobacco growing as a one-crop system had been largely abandoned, and tobacco production had become an integral part of a general farming system. The better class of planters grew clover, used marl and lime, and kept some livestock. Nevertheless, there was much slovenly farming in southern Maryland, and on both shores there was extensive soil exhaustion.<sup>55</sup>

TABLE 35.—*Number of livestock per capita and production per capita of farm products in selected groups of counties of various farming regions east of the Blue Ridge, 1850<sup>1</sup>*

Regions	Horses, asses, and mules	Cattle	Sheep	Swine	Wheat	Rye and oats	Corn	Potatoes	Butter and cheese	Hay	Flax	Hemp	Tobacco	Wool
	no.	no.	no.	no.	bus.	bus.	bus.	bus.	lbs.	tons	lbs.	tons	lbs.	lbs.
Northwestern Mary- land.....	0.22	0.45	0.31	0.89	19.53	6.68	16.16	1.35	16.35	0.64	0.07	(a)	3.69	0.89
Eastern Shore, Mary- land.....	0.22	0.66	0.50	0.89	11.29	4.84	41.37	2.45	5.10	0.03	0.06	(a)	(a)	1.57
Northern Virginia....	0.27	1.04	1.04	1.21	18.93	5.96	28.94	1.19	14.65	0.42	0.42	..	0.09	3.23
Western Piedmont, Virginia.....	0.20	0.63	0.67	1.43	9.32	9.00	28.04	1.76	7.62	0.14	0.58	(a)	76.90	1.39
Middle Virginia.....	0.18	0.57	0.75	1.07	11.00	7.06	22.73	1.92	5.64	0.05	0.39	..	155.29	1.63
Tidewater Virginia....	0.13	0.62	0.40	1.11	9.08	2.40	33.75	1.87	5.31	0.19	..	..	0.16	1.17
Central Piedmont, North Carolina.....	0.23	0.58	0.63	1.76	5.11	9.57	35.50	2.39	6.34	0.38	0.94	..	2.02	1.12
Northeastern Tide- water, North Caro- lina.....	0.15	0.91	0.56	1.72	0.99	1.04	47.23	6.76	2.44	(a)	3.28	..	..	1.03
Southeastern Tide- water, North Caro- lina.....	0.16	1.04	0.70	2.42	0.12	0.68	26.08	15.92	2.65	0.08	0.01	(a)	0.02	1.16
Western Piedmont, North Carolina.....	0.16	0.82	0.75	2.01	1.52	6.18	31.80	3.19	7.94	0.10	1.91	..	0.61	1.33
Western Piedmont, South Carolina.....	0.24	0.95	0.36	2.24	2.49	7.56	37.51	6.69	10.23	0.03	0.01	..	1.77	1.15

<sup>1</sup> *United States Census*, 1850.

The counties in each region are as follows: Northwestern Maryland—Frederick, Washington, Carroll; Eastern Shore, Maryland—Dorchester, Kent, Queen Annes; Northern Virginia—Culpeper, Fauquier, Loudoun, Prince William; Western Piedmont, Virginia—Albemarle, Amherst, Bedford, Nelson; Middle Virginia—Amelia, Buckingham, Cumberland, Fluvanna, Louisa; Tidewater Virginia—Charles City, Essex, Gloucester, Richmond; Central Piedmont, North Carolina—Davie, Davidson, Forsyth, Guilford, Randolph; Northeastern Tidewater, North Carolina—Camden, Currituck, Hyde; Southeastern Tidewater, North Carolina—Bladen, Duplin, Onslow; Western Piedmont, North Carolina—Burke, Caldwell, Wilkes; Western Piedmont, South Carolina—Pickens.

(a) Amounts too small to equal .01 per cent.

Northwestern Maryland was one of the most important wheat regions in the South, resembling the Valley of Virginia in per capita output. It excelled the last named region in per capita production of rye, but—like all the Valley lands—it did not rank high in per capita production of corn. Although per capita numbers of cattle and other livestock were not relatively large, animal husbandry

<sup>55</sup> *American Farmer*, 1 series, I (1819–20), p. 330; 4 series, III (1847–8), pp. 106–110, 134; *Cultivator*, VI, 44; Maxcy, *Address to the Agricultural Society of Maryland*, Dec. 15, 1819, pp. 8–11.

was evidently more intensive than in some of the other regions, as indicated by per capita production of hay and of butter and cheese combined. It was essentially a region of small farmers, mostly nonslaveholders, who continued the thrifty economy introduced from Pennsylvania, based on clover, wheat, and livestock, aided by plaster, lime, and manure; the same type of economy, in fact, which came to prevail in the Valley of Virginia and in northern Virginia. Early in the period, also, this general farm economy began to displace the old tobacco régime in Montgomery and other counties of the eastern Piedmont of Maryland.<sup>56</sup>

The Eastern Shore continued to be sharply contrasted with the tidewater districts of the Western Shore. Before the beginning of the post colonial period various conditions had caused not only the abandonment of tobacco cultivation but also smaller landholdings, fewer slaves, and smaller slaveholdings than prevailed across the Bay.<sup>57</sup> The few large landholdings were rented to tenants, mostly whites, who tended to remain for many years on the same place.<sup>58</sup> Nevertheless, soil exhaustion was becoming serious, tending to stimulate more emigration. Furthermore, the slave population had been rapidly decreased through sale to the lower South, including criminal slaves, who under the provisions of Maryland law must be removed from the State, and through extensive manumission.<sup>59</sup> The agriculture of the region was essentially general farming. The per capita production of corn was higher than in any of the other general farming areas included in the above table except in northeastern North Carolina. Wheat, rye, oats, and hay were produced in considerable quantities. There were many peach orchards, used in the early period mainly for hogs but toward the close of the period employed more and more for commercial production. The area was also becoming more and more important for the production of potatoes and commercial truck crops. The Magothy bean occupied an important rôle in maintaining soil fertility, and the production of castor beans had gained some foothold. Dairying had made some headway in the region.<sup>60</sup>

Northern Virginia was one of the most important general farming regions in the South. The introduction of the clover and plaster husbandry and the immigration of small farmers gradually transformed this territory from an area of large estates exhausted by tobacco and striving to produce wheat on the run-down soils into a region of smaller farms bearing some of the thrifty and prosperous appearance of southeastern Pennsylvania. Clover, plaster, and lime increased the productiveness of the soil. Large numbers of cattle brought from the mountains were fattened for market; in 1842 upwards of 12,000 head were annually shipped from Loudoun County alone. A large proportion of the slaves were shipped to the lower South. Land values rose to several times their former value. The green meadows and pastures and the general atmosphere of thrift

<sup>56</sup> Faux, *Memorable Days in America* (Thwaites, *Early Western Travels*, XI), 140-156; Washington, *Letters on Agriculture*, 42-49; reprinted in *Farmers' Register*, V, 330-332; Holcomb, *Address before the Montgomery County Agricultural Society*, Sept. 14, 1854, p. 3.

<sup>57</sup> See above, p. 383.

<sup>58</sup> *Farmers' Register*, III, 236, 239.

<sup>59</sup> *Ibid.*, II, 93; *Farmer and Gardener*, III, 356; Maxcy, *Address to the Agricultural Society of Maryland*, Dec. 15, 1819, pp. 8-11.

<sup>60</sup> See above, pp. 823, 825.

and homespun comfort were the admiration and the envy of travellers from the debt-ridden and exhausted soils of the older plantation sections.<sup>61</sup> The region continued to benefit from immigration. Thus, about 1840 fifty-six families from Dutchess County, New York, settled in Fairfax County and purchased small farms or subdivided larger ones. Shortly thereafter there was some development of dairying, including cheese production, probably attributable to the influence of the new immigrants.<sup>62</sup> The region ranked nearly as high as western Maryland in per capita production of wheat, second in per capita production of butter and cheese, and third in hay. It surpassed all the other regions east of the Blue Ridge in the per capita number of sheep and all except southeastern North Carolina—a range region—in number of cattle per capita.

During the colonial period virtually all of the piedmont plateau in Virginia had been occupied by tobacco planters. Before the close of the period, however, some of the counties along the eastern edge of the Blue Ridge had taken up grain growing as a main source of income.<sup>63</sup> Just before the Civil War, therefore, parts of the piedmont plateau were in an intermediate stage between general farming and the raising of tobacco. In general, tobacco growing increased in importance from north to south. Concentration on tobacco production reached its greatest extreme in the southernmost parts of the region, along the North Carolina line, especially in Pittsylvania and Halifax counties. Toward the close of the period tobacco growing in this area was further strengthened by high prices and the discovery of the adaptability of the soils to the growth of bright yellow types.<sup>64</sup> In the character of their agriculture the northern counties approximated more closely to northern Virginia, and the piedmont counties along the eastern edge of the Blue Ridge had been strongly influenced by the agriculture of the Valley, producing mainly grain and livestock, and but little tobacco. In the group of counties of middle Virginia selected for study (Table 35), the per capita production of tobacco was about 155 pounds. There was a moderately large per capita production of wheat and corn, although not so much of the former as in the Valley of Virginia or in northern Virginia, nor so much of corn as in the western piedmont of Virginia and a number of other areas. Farther west in the Piedmont of Virginia the production of tobacco per capita was only half that of the middle Virginia group, and the production of wheat was somewhat less, but the Piedmont has the advantage of the comparison in per capita production of rye and oats combined, corn, hay, and butter and cheese combined. In the number of livestock of all kinds both regions occupy an intermediate position between the extremes of the districts east of the Blue Ridge.

Until the era of railway building middle Virginia was at a great disadvantage on account of remoteness from market. Although the James, the Roanoke, and some of their tributaries were early improved by canalization, many parts of the region remained remote from water transport. This forced the continuance

<sup>61</sup> Johnson, W., *Nugae Georgicae*, 31; *Farmers' Register*, V, 333-335, 593-596, 747; VI, 457; X, 92; *Southern Planter*, V, 241.

<sup>62</sup> *Ibid.*, II, 19; III, 66, 208; VII, 193; *Farmers' Register*, X, 510.

<sup>63</sup> *Ibid.*, I, 150; V, 335.

<sup>64</sup> See above, p. 757.

of tobacco growing in parts of the area which might otherwise have turned to general farming. Some of the Piedmont counties purchased mountain cattle, and after fattening, marketed them on the hoof. High cost of importing plaster led middle Virginia to turn more slowly than northern Virginia to the plaster and clover husbandry. The general scarcity of available marl prevented extensive resort to that agency, which was rapidly transforming the agriculture of Tidewater Virginia. Contemporary accounts indicate that there was a widespread continuance of the destructive practice of clearing land and growing tobacco or of the corn and wheat husbandry under the old three-field system. Nevertheless, there were many farmers who found means of access to nearby deposits of limestone, and in general there was a tendency to abandon the one-crop system and to make tobacco growing an integral part of a general farming system. Toward the close of the period these forward steps and the increased commercialization of agriculture were being facilitated by the building of railways and also by some immigration of Northern farmers.<sup>65</sup>

The tobacco industry, of course, had long since disappeared from Tidewater Virginia and the Albemarle Sound region of North Carolina. In the former region there was a moderately large per capita product of corn, which was the principal market crop of the uplands; while northeastern North Carolina had the highest per capita product of the various eastern regions. The Virginia tidewater region produced considerable quantities of wheat, principally in river-bottom lands, although the per capita products did not compare favorably with the counties of northern Virginia. These river lands, operated in large plantations, were in an admirable state of cultivation as compared with adjacent uplands. In 1860 an estate at Brandon produced 18,000 bushels of wheat and 12,000 bushels of corn. Another proprietor owned 25,000 acres of James River lands, not all in one body, and produced 125,000 bushels of wheat and 135,000 bushels of corn.<sup>66</sup>

In the tidewater groups of North Carolina cotton became the principal market crop in a group of northeastern counties, including Edgecombe, Northampton, and neighboring counties, and also in a southeastern group, including Sampson, Wayne, Lenoir, and Duplin. Comparatively little wheat and other kinds of small grain were produced. These counties were notable, especially in the southeastern part of the State, for a large per capita product of sweet potatoes. The numbers of cattle per capita were the largest of the various eastern regions, and the numbers of hogs per capita were large. Stock were maintained by open-range methods on the abundant cane and grass of the marshes. Systematic agriculture was carried on only on the alluvial lands, and in considerable areas comparatively little was raised for sale. Most of the extensive areas of sandy pine lands were uncleared except for occasional small patches cultivated in a slovenly fashion by poor whites or small turpentine farmers, who were able to

<sup>65</sup> *Farmers' Register*, I, 276, 334, 586, 643; II, 124, 265; V, 31, 337, 363, 460; *Southern Planter*, X, 72, 161; XIX, 72, 79.

<sup>66</sup> *Farmers' Register*, IX, 214; *Country Gentleman*, XX, 291; *Southern Cultivator*, V, 182; *American Agriculturist*, III, 104; IV, 118; *De Bow's Review*, XXIII, 297; Godley, *Letters from America*, II, 202; Russell, R., *North America, Its Agriculture and Climate*, 153.

make such large profits from turpentine and tar that they had little inducement to farm the poor soils, except to supply their own needs. Sweet potatoes were produced, and cowpeas raised in the midst of the small patches of corn afforded an easy means of fattening hogs.<sup>67</sup>

"Southside" Virginia, east of the tobacco section and outside of the river bottoms, is an area of light sandy soils. Most of the farms and slaveholdings were small, and many of the farmers, as in eastern North Carolina, combined farming with lumbering, and not infrequently with oystering and fishing. A large proportion of the land was still uncleared, and the farming generally of the one-horse type. More or less cotton was grown, but since, as we have noted, the region was marginal for cotton, the extent of cotton cultivation varied greatly in accordance with the longer swings of prices. Corn, oats, cowpeas, and sweet potatoes were the other principal crops. Average yields of corn, especially on the uplands, were very low, probably in many cases less than 10 bushels per acre. Livestock were kept mainly for home use, and in general there was a large degree of self-sufficiency.<sup>68</sup> The district around Norfolk, as already noted, was unique in its agricultural economy, for in the thirty years before the Civil War it developed into a commercial trucking region. The industry was largely promoted by small Northern farmers. By means of daily shipping connections with Baltimore thousands of watermelons and large quantities of potatoes, cucumbers, radishes, tomatoes, peas, and other truck crops were shipped. Boatloads of manure were brought from Baltimore to be applied to the sandy lands, and the intensively tilled truck farms soon presented a striking contrast to the careless, slovenly, and easy-going husbandry that prevailed elsewhere in the region. Although in 1860 the total value of the exports of the new industry was less than \$300,000, this was prophetic of the important development of the trucking industry in the South since the war.<sup>69</sup>

In North Carolina the groups of counties in the central Piedmont region greatly surpassed those of the western Piedmont in the production of corn, wheat, other small grains, hay, and tobacco, while the latter group excelled in the per capita numbers of cattle, sheep, and hogs, as well as in the production of butter and cheese, and potatoes. Like the counties of middle Virginia, both groups of counties were severely handicapped until the era of railways because of costliness of shipping products to market; and in general land values were very low.<sup>70</sup> The counties along the Virginia line, including Caswell, Granville, Person, and Rockingham, became the principal tobacco growing section of the State after the disappearance of the industry in the Albemarle region. Tobacco was being extended into the western Piedmont, in Rowan and neighboring counties. Before

<sup>67</sup> Cf. account of Edmund Ruffin's excursion in this region, in *Farmers' Register*, VIII, 243-254. See *De Bow's Review*, XXIII, 11-16; Harrell, "Gates County to 1860," in Duke University, *Historical Papers*, XII, 99-104.

<sup>68</sup> *Farmers' Register*, IV, 524-527; *Southern Planter*, IV, 191; V, 161.

<sup>69</sup> *American Agriculturist*, IV, 118; United States, Patent Office, *Annual Report*, 1847, p. 378; *De Bow's Review*, XXIII, 14, 413; Olmsted, F. L., *Cotton Kingdom*, I, 154; United States, Dept. Agric., *Annual Report*, 1864, p. 17; *Farmers' Register*, IV, 527.

<sup>70</sup> Fisher, C., *Report on the Establishment of Cotton and Woolen Manufacturies* (N. C., Bd. of Agric., *Papers*, III), 45-47; *United States Census*, 1860, *Agriculture*, 104-111; *North Carolina Planter*, II, 4.



the invention of the cotton gin the southern Piedmont counties were occupied predominantly by small, nearly self-sufficing farmers who, in addition to livestock, shipped small quantities of products by schooner wagon or boat to distant markets, expending half the market value in cost of transport.<sup>71</sup> Very early, however, cotton became the important staple in a group of central counties along the South Carolina line, including Anson, Mecklenburg, Cabarrus, Richmond, and other counties in the Yadkin and Catawba watersheds. The high prices of the last decade greatly stimulated both industries and caused them to expand.

Although upper South Carolina, a region of pioneer general farmers at the beginning of the period, had been transformed before its close into a region of cotton plantations, three counties in the extreme northwestern part—Pickens, Oconee, and Anderson—where the climate was unduly cold for cotton, ranked high among the general farming regions east of the Blue Ridge in production of corn, wheat, and potatoes, in number of horses, hogs, and cattle, and in production of butter and cheese. About 1842 the farmers were being urged to abandon the practice of selling the greater part of their corn to the cotton planters farther east, and to raise more livestock in order to reduce the dependence of the State on supplies from Kentucky and Tennessee.<sup>72</sup> Pendleton, in the northwest corner of Anderson County, was the center of an agricultural society, founded in 1815 and continuing throughout the period, which did much to improve the general farming methods of the region.<sup>73</sup>

<sup>71</sup> United States Agricultural Society, *Journal*, VIII, 184; McDuffie, "Some Chapters in the Life of Willie Person Mangum," in Duke University, *Historical Papers*, XV, 7-10.

<sup>72</sup> *Southern Agriculturist*, new series, II, 25.

<sup>73</sup> See above, p. 784.

## CHAPTER XXXIX

### THE ATTEMPTED READJUSTMENT OF SOUTHERN ECONOMIC LIFE

The Agrarian Movement of the Fifth Decade, 924. Attempts at Economic Reorganization: The Commercial Conventions, 927. Influence of Agricultural Competition for Labor and Capital in Limiting Industrial Diversification, 933. Attitude of Southern Opinion toward the Fundamentals of the Southern Economic System, 936. Economic Disadvantages of Slavery to the South as a Whole, 940.

#### THE AGRARIAN MOVEMENT OF THE FIFTH DECADE

The attempted agricultural readjustments described in the preceding chapter were largely the outgrowth of a reaction to the hardships attendant upon Western competition and of the recognized necessity of improving the technical methods of Southern agriculture and eliminating waste and extravagance. In part, however, the movement for agricultural reform may be traced to a growing conviction of the necessity for a radical readjustment of the entire economic structure of the South in order to enable the section to keep pace with the rapidly growing free society of the North. There was but one reservation; Negro slavery must not be abandoned. To whatever causes the recognized economic evils were attributed, there were few among the influential elements in the lower South, after 1850, who would concede the responsibility of slavery. "The leaders of Southern thought in the forties and fifties were trying to do just what the leading men of the South are trying to do now, viz.: to discover some way or ways by which a society made up of whites and blacks in almost equal proportions can keep pace with a society of whites only."<sup>1</sup>

One phase of the attempted readjustment took the form of an agitation for reform in the system of marketing, stimulated by the low prices of cotton during the fifth decade. As in the case of the post bellum farmers' movements, the primary characteristic was opposition to the middleman, based on the conviction that the middleman fixed the price of the staple. The antagonism to the cotton factors and merchants was expressed by a contemporary writer as follows:<sup>2</sup>

"Our adversaries herd in the public marts; they fill up the highways; they combine; they control public opinion; they command the press, and exercise, not always, a just and wholesome influence over the opinion of the factors who sell our crops. They estimate our productions, and too often regulate the prices, upon data made for the occasion. We do not, perhaps we cannot, combine. We do not dispatch couriers through every district to learn and report the amount of the incoming crop. . . . If we endeavor to investigate the prospects of future prices, we can grasp only the information which the speculator and the manufacturer have prepared for their own purposes, and we sell our crops with the haste of an auctioneer getting off a cargo of West India fruit on a frosty day."

<sup>1</sup> Brown, W. G., *Lower South in American History*, 94.

<sup>2</sup> Article by Dr. W. C. Daniell, of Savannah, in *De Bow's Review*, XIII, 64; cf. *American Agriculturist*, IV, 156.

Other similar articles appeared, together with various suggested remedies, such as voluntary curtailment of cotton acreage, formation of ironclad agreements for acreage reduction, associations to promote systematic crop reports, and organization of planters' commission companies.<sup>3</sup>

The discontent also found expression in a series of planters' conventions. The first of these, held at Montgomery, Alabama, in 1845, seriously considered the formation of an agreement among planters to limit production.<sup>4</sup> At the sectional convention held at Memphis a few months later, attended by nearly 600 delegates from all over the South, the same idea was expressed by a resolution proposing a combination of all Southern cotton planters in an agreement to reduce production by a designated percentage, the surplus labor to be employed in diversification. The proposal, however, was declared absurd by thoughtful writers in the South and was ridiculed by foreign critics.<sup>5</sup>

At a State convention of cotton planters held in 1851 at Tallahassee, Florida, a still wilder scheme was evolved. Instead of controlling production, prices were to be arbitrarily fixed. It was proposed to form a gigantic commission company with a capital of at least \$20,000,000 to be employed in acquiring warehouses, aiding planters to hold the crop, and selling cotton on a commission basis. In order that the organization might secure a monopoly of the cotton trade, it was proposed to guarantee to all regular customers a minimum price somewhat above the market price. The world was to have notice that whenever cotton was not demanded by others at or above the minimum price it would be taken by the association. Once purchased, it was never to be resold until buyers were willing to pay the purchase price plus all accumulated charges for storage and insurance. It was thought that merchants would hasten to buy in order to avoid the accumulating charges thus automatically added to the price of cotton.<sup>6</sup> This project was endorsed at a general sectional convention held at Macon, Georgia, in October, 1852, but there was much dissatisfaction with the visionary scheme, which was forced on the convention when but a small percentage of the delegates were present.<sup>7</sup>

A plan for a monopoly of the cotton trade through the establishment of "a continental depot of cotton in opposition to Liverpool" was one of the principal objects of the Commercial Convention of the South and West, held at Memphis in 1853. In the New Orleans convention of 1855 a resolution was offered for correspondence with European manufacturers for the direct purchase of cotton, in order to break up the "Liverpool monopoly."<sup>8</sup> In the interval since the Macon convention, however, a committee appointed by that body to consider the possibility of a permanent agricultural association for the slaveholding States issued a circular embodying recommendations which had lost much of the agrarian

<sup>3</sup> For typical illustrations, see *Southern Agriculturist*, new series, IV, 329; V, 417; *Farmer and Planter*, II, 157; VIII, 227.

<sup>4</sup> *Niles' Register*, LXVIII, 4.

<sup>5</sup> *Southern Cultivator*, IV, 42; *De Bow's Review*, I, 9; XV, 342.

<sup>6</sup> *Ibid.*, XI, 497-504; Watkins, *King Cotton*, 108.

<sup>7</sup> *De Bow's Review*, XII, 110; XIV, 72. One of the delegates published a severe criticism of the project. *Ibid.*, XII, 121-126, 275-279.

<sup>8</sup> *Ibid.*, XIV, 524; XVIII, 757; *Cotton Plant*, I, 332; *Louisiana Courier* (New Orleans), Jan. 12, 1855.

spirit of the earlier meetings. The committee declared the principal objects of the association to be the encouragement and improvement of agricultural production by promoting investigations in the chemistry of soils, insect pests, and means of improving exhausted soils, and by encouraging the auxiliary mechanic arts. The proposal was approved by the Montgomery convention of 1853, and accordingly the Southern Planters' Association was organized.<sup>9</sup> When the association met at Columbia, in 1854, the radical agitation that had characterized the earlier sessions seems to have disappeared under the influence of the high prices of cotton. The time of the meeting was taken up with listening to various educational addresses, in passing resolutions for a Southern Central Agricultural College, and appointing a committee to confer with the President of the United States with a view to breaking up the existing monopoly in guano.<sup>10</sup>

Another pet idea of Southern agricultural reformers which received considerable attention at the Montgomery convention was the development of a plantation machine for ginning, carding, and spinning cotton at one operation. This program was favored as a means of decreasing the dependence on foreign markets. A number of inventions of this character were announced at various times.<sup>11</sup> In fact, in spite of the predilection of the section as a whole for free trade, there were some who believed the solution of the South's problem was to break its dependence on Manchester for the sale of its chief staple, by encouraging home manufactures through a high tariff. Henry C. Carey, who had strongly criticised the Tallahassee-Macon scheme, formulated the argument for protection in the interest of the planters.<sup>12</sup>

In 1857 the disparity between prices paid for cotton in the South and high prices at Liverpool, due largely to the paralysis of credit growing out of the monetary panic in New York, led to the consideration of more radical suggestions. A Georgia planters' society brought forward again the proposal for a planters' organization for direct shipment to Europe.<sup>13</sup> In 1858 a Southern planters' convention at Macon, Georgia, referred the following topics to committees to report on in September at an adjourned session in the same city: "1st, The Cotton Power; 2nd, The Cotton Power as an American Power; 3rd, The Cotton Power as a Union Power; 4th, The Cotton Power as a Peace Power; 5th, The Cotton Power as an Anti-Abolition Power." The character of the topics indicates how rapidly political interests were supplanting purely economic considerations. The positive work of the convention consisted in the appointment of a representative to act as a factor of the Association in the Savannah market, with the expectation of later extending the arrangement to other Southern ports. The factor was forbidden to charge members more than 50 cents per bale, the former customary commission, which had been recently increased to 2½ per cent—a difference of approximately \$1.00 per bale. A committee was appointed to consider the pos-

<sup>9</sup> *De Bow's Review*, XIV, 510; XV, 324; *Cotton Plant*, I, 306.

<sup>10</sup> *De Bow's Review*, XVI, 214, 331.

<sup>11</sup> Watkins, *King Cotton*, 47, 109, 256; article on "Cotton," in *Louisiana Courier* (New Orleans), May 19, 1857.

<sup>12</sup> *Two Letters to a Cotton Planter of Tennessee*.

<sup>13</sup> *Farmer and Planter*, VIII, 284.

sibility of establishing a bank to be owned by the Association, for the purpose of aiding the Association's factor in granting planters credit on open accounts one year in advance of harvest, for unless the factor could make these terms he would not be able to secure any large share of the business of shipping cotton.<sup>14</sup>

The last of the series of planters' conventions, which met at Nashville in 1859, reverted again, under the influence of favorable prices, to more conservative attitudes with reference to agricultural problems. Committees were appointed to collect agricultural statistics and to establish an organization for securing regular reports on the condition of the cotton crops. The convention voted for the establishment of an official agricultural paper and for a congressional survey of the Mississippi river for the purpose of promoting a system of drainage.<sup>15</sup>

#### ATTEMPTS AT ECONOMIC REORGANIZATION: THE COMMERCIAL CONVENTIONS<sup>16</sup>

These efforts to unify the agricultural interests of the South began to be absorbed in the earlier years of the sixth decade by a larger movement that concerned the entire economic life of the section. The higher prices of cotton had allayed in considerable measure the agricultural discontent and general hostility toward the middleman. On the other hand, the rapid march of the slavery struggle, which was steadily increasing the political unity of the South, stimulated the section to take stock of its general economic and social position. Powerful forces were effecting an economic unity no less significant. The economic interdependence of border States and lower South steadily increased, but from the beginning of the century until about the beginning of the sixth decade the eastern and western States of the South were economic rivals. The eastern States, as we have noted, had suffered severely from the competition of the West. About 1850, however, demand for cotton expanded to such an extent as to absorb even the constantly increasing product at higher prices. It is probable that rising prices of Western lands made them less tempting to Eastern planters. In an address before the South Carolina Institute, in 1851, William Gregg asserted that South Carolina was beginning to be capable of competing with the West in cotton production. From an early period the transformation of the pioneer farmers of the Southwest into cotton planters had operated to unify sentiment with respect to slavery. The rapid expansion of railway building was another cause of increasing economic unity.<sup>17</sup> The tendency toward Southern sectionalism, which had encountered a powerful economic obstacle in the economic unity of the northern and southern portions of the Mississippi valley,<sup>18</sup> was promoted by the diversion eastward of trade from the northern part of the valley, due to the construction of railways.

<sup>14</sup> *De Bow's Review*, XXV, 217, 713.

<sup>15</sup> *Ibid.*, XXVII, 716.

<sup>16</sup> A number of portions of the remainder of this chapter are parallel with the more detailed treatment of the same subjects by Robert Royal Russel in his *Economic Aspects of Southern Sectionalism*, and by John G. Van Deusen in his *Economic Bases of Disunion in South Carolina*. I have been inclined to retain these portions because the principal conclusions were reached some years before the appearance of the two books mentioned and partly because the discussion contains materials and conclusions not found in their monographs. However, in discussing certain topics I have drawn heavily on both volumes.

<sup>17</sup> *De Bow's Review*, XII, 315; cf. *ibid.*, XIX, 377; Dodd, *Expansion and Conflict*, 132-141.

<sup>18</sup> Russel, *Economic Aspects of Southern Sectionalism*, 87, 185.

Under the stimulus of political alarm this increasing sense of economic unity found expression in a series of notable commercial conventions, in which the broader economic, political, and social interests of the section were differentiated from the purely agricultural interests, which had mainly dominated the deliberations of the planters' conventions. Southern opinion began to recognize that if the South was to keep pace with the North it would be necessary to substitute action for the diatribes against the tariff and the National fiscal policy which had provided the political thunder of the fourth decade.<sup>19</sup> As early as the years 1837-1839 four commercial conventions were held in successive years at Augusta and Charleston. In 1838 conventions of similar import were assembled at Richmond and Norfolk. The dominant theme of these conventions was the promotion of direct trade with Europe.<sup>20</sup> At the Memphis convention of 1845, largely devoted to the subject of river improvement and railway construction, commercial and agricultural problems were also considered. In 1849 conventions devoted to the discussion of the project for a Pacific railway were held at St. Louis and Memphis. In 1851 the Southwestern Railway Convention met at New Orleans, and the following year a more widely sectional convention was held at the same city. In 1852 the first meeting of the great Southern Commercial Convention convened at Baltimore, with delegates from nearly all of the Southern States. Thereafter, the Convention was a continuous organization which met annually in succession at Memphis, Charleston, New Orleans, Richmond, Savannah, Knoxville, Montgomery, and Vicksburg.<sup>21</sup> In addition to these sectional conventions, there were a number of meetings for the purpose of promoting the economic and commercial interests of single States and particular localities.

The sectional conventions may be credited with little positive accomplishment. There was a good deal of rivalry between different localities seeking to gain special commercial advantages. In the intervals between the sessions there were standing committees of correspondence, besides special committees on particular questions, but there was no machinery by means of which the decisions of the conventions could be put into effect. Most of the resolutions were in the form of memorials to Congress or to State legislatures. The conventions served the purpose of discussion, but too frequently their deliberations were marked by consideration of chimerical projects or the conflicting claims of various local interests. There was a tendency to tilt with windmills, and to waste a great deal of time in verbiage and flights of eloquence.<sup>22</sup> Nevertheless, the proceedings reflect some of the powerful economic currents of the decade preceding the Civil War; and the sessions provided opportunity for analysis of the economic and social position of the South, and promoted sectional consciousness and unity.

<sup>19</sup> On this last phase of Southern thinking, see Russel, *Economic Aspects of Southern Sectionalism*, 65-69.

<sup>20</sup> *De Bow's Review*, IV, 211; Ingle, *Southern Sidelights*, 220-226; Russel, *Economic Aspects of Southern Sectionalism*, especially pp. 16-32.

<sup>21</sup> Ingle, *Southern Sidelights*, 221-225; *De Bow's Review*, X, 465; XII, 315; XIV, 373-379, 524; XVI, 632-641; XVII, 91-99, 491; XVIII, 240, 353-360, 520-528, 623-635, 749-760; XX, 342-353; XXI, 550; XXII, 81-99, 309; XXIII, 298-320; XXVII, 94-103; Southern and Western Commercial Convention at Memphis, 1853, *Proceedings*, 5; *Hunt's Merchants' Magazine*, XXXIV, 392. These conventions are discussed in detail in Russel's *Economic Aspects of Southern Sectionalism*, Chaps. I, IV-V.

<sup>22</sup> *De Bow's Review*, XVIII, 520-528, 623-634; *Louisiana Courier* (New Orleans), Jan. 25, 1855.

The fundamental motive which gave rise to the successive sessions of the Commercial Convention was the growing consciousness of the increasing economic and educational superiority of the North.<sup>23</sup> However much slavery was the primary cause of the great struggle between the sections, and however influential the increasing political disparity, the increasing economic inferiority of the South was a scarcely less important influence. Even in agriculture the contrast with Northern conditions was disquieting. Southern agricultural papers printed many articles comparing the exhausted soil, the low price of land, the general ruin and decay, and the inefficient methods of production in the South with the productive soils, high land values, and the thrift and prosperity of the neighboring Northern States.<sup>24</sup> The superior rapidity of Northern development in commerce, manufacturing, railway building, wealth, and population greatly intensified Southern jealousy and suspicion. To the statesman this disparity was a recognized source of danger in case of war; to the common man it was a proof and measure of the economic wrongs which he believed the South had been forced to suffer. In 1856 these convictions were summarized in the *Address to the People of the Southern States* prepared by a committee of the Richmond convention:<sup>25</sup>

"Nearly a quarter of a century ago it began first to manifest itself to the Southern States, that, although they embraced in proportion to population the wealthiest producing region in the world, they were contributing directly or indirectly of its proceeds, to the aggrandizement and commercial opulence mainly of other sections of the Union, notwithstanding every consideration of propriety and patriotism demanded that these elements of wealth should be retained at home. . . .

"It is impossible to resist the evidence that these Conventions originating at first in purely economical considerations, however, afterwards stimulated and deriving renewed activity from the insolent and aggressive spirit exhibited at times by the free States, . . . have contributed largely to a consolidation of Southern sentiment, to a better understanding of our condition and necessities, and have also been felt in that general development now everywhere manifesting itself at the South, extending our railroads, enlarging and diversifying our commerce and manufactures, and developing our agriculture, inviting and concentrating population and leading to new combinations and to higher and still higher hopes.

"It was declared at Richmond, that the objects of the Convention were 'to secure to the Southern States the utmost amount of prosperity as an integral part of the Federal Union or to enable them to maintain their rights and institutions in any event.' "

The increasing disparity in the commercial importance of the two sections was a source of special dissatisfaction. As early as 1838, at the commercial convention held at Augusta, Georgia, Governor McDuffie, of South Carolina, pointed out that whereas the exports of the South amounted to 73 per cent of the total exports of the Union, Southern imports were less than 11 per cent; that the single port of New York imported six times as much as all the Southern States combined.<sup>26</sup> It was the more difficult for the South to stomach this extreme commercial disparity because it had come about in little more than two generations.

<sup>23</sup> Russel, *Economic Aspects of Southern Sectionalism*, 47.

<sup>24</sup> *American Farmer*, 1 series (1819-27), I, 125; IV, 154; VI, 162; VIII, 206; Weston, G. M., *Progress of Slavery in the United States*, 54-65.

<sup>25</sup> *De Bow's Review*, XXI, 550.

<sup>26</sup> *Ibid.*, IV, 211-225; XIV, 440.

In 1774 the imports of New York had amounted to only £80,008; in 1860 they were valued at \$248,489,877. In 1774 the imports of Carolina (mostly South Carolina) had amounted to £432,302; in 1860 they were valued at only \$1,569,570. In 1860 the imports of Virginia were only \$1,326,249, as compared with £612,030 in 1774 for Virginia and Maryland combined. On the other hand, the imports of Massachusetts in 1860 were approximately eighty times the imports of all New England in 1774, while the imports of Pennsylvania were more than forty times as large as in 1774.<sup>27</sup>

The poor showing of the South Atlantic ports was due largely to the fact that Northern goods had been gradually substituted for earlier direct imports from Europe. The showing of the Southern ports would have been much better if account had been taken of the large coastal trade that entered their harbors. Professor Russel has brought out the fact that in the latter part of the period Southern consumption of foreign goods, whether directly or indirectly imported, was not large, and perhaps not greatly in excess of the direct imports of Southern harbors. Since Southern merchants bought so large a proportion of their goods from New York, Philadelphia, and Boston, it was but natural that they should rely on the same commercial connections for obtaining some of their comparatively small purchases of foreign products. Northern merchants emulated the earlier policy of British merchants in granting the long credits so necessary to regions of essentially capitalistic agriculture, which was expanding so rapidly that it absorbed all available capital. Southern importers were handicapped by scarcity of capital, by a relatively narrow market and great fluctuations in the ability of planters to buy, and by the inferiority of Southern ports, greatly neglected because Southern Congressmen of strict construction views were loath to ask for appropriations.<sup>28</sup>

Leaders of Southern opinion, however, found in the commercial disparity a convincing proof of the economic wrongs of the section. It was alleged that there was discrimination against the South in the expenditure of revenues obtained from tariff duties, such as in appointments to the civil service, the distribution of fortifications, lighthouses, beacons, and buoys, coastal surveys, navy yards, pensions, post offices, and certain eleemosynary institutions.<sup>29</sup> The scarcity of capital which severely handicapped Southern merchants and manufacturers was attributed to the continual exactions from the South through tariff duties, fishing subsidies, and the preferential tonnage duties that enabled Northern vessels to dominate the coastal trade. Emphasis was given also to the commercial tribute exacted by Northern merchants under the so-called indirect trade. Kettell estimated the annual "profit" of the North at Southern expense from these various sources at \$232,000,000, and that in sixty years the total represented not less than \$2,770,000,000. Southern leaders pointed to the fact that

<sup>27</sup> From a table compiled by Russel, *Economic Aspects of Southern Sectionalism*, 295; United States, Register of the Treasury, *Annual Reports on Commerce and Navigation*, 1860, p. 552. On the decline and subsequent stagnation of Charleston's import trade, see Van Deusen, *Economic Bases of Disunion in South Carolina*, 182-185.

<sup>28</sup> Russel, *Economic Aspects of Southern Sectionalism*, 24, 107-113.

<sup>29</sup> Van Deusen, *Economic Bases of Disunion in South Carolina*, Chap. III, *passim*, also App., pp. 334-339.



although Southern ports enjoyed a large export trade it was mainly dominated by Northern or European merchants, many of them transients who failed to identify themselves with the South. Hayne estimated that 10 to 15 per cent of the price of cotton went to New York merchants. As early as 1829 the fear was expressed that the remaining export trade might depart also to ports enjoying the advantage of return freights, thus forcing the planters to depend on consignment to Northern markets.<sup>30</sup> Thus, the economic interdependence of two sections in different stages of economic evolution was translated under the white heat of localism and particularism into a consciousness of economic vassalage; and the Physiocratic doctrine of the economic superiority of agriculture was replaced by the conviction that commerce confers the magic wand of wealth, acquisition, and accumulation.<sup>31</sup>

The disgust and alarm occasioned by these conditions resulted in an agitation for Southern direct trade. In the last years of the fourth decade this agitation was maintained mainly by the South Atlantic cities; and failed to awaken adequate support in the Southwest, which was still enjoying the prosperity occasioned by rapid expansion. In the early fifties, however, New Orleans was beginning to feel keenly the effects of the diversion of trade by rail to Mobile and the Atlantic ports, and the agitation for direct trade found a readier response.<sup>32</sup> The agitation resulted in various proposals, including discriminatory taxation of indirect imports, appeals to Southern consumers to be more thrifty and accumulate the needful commercial capital, and to Southern merchants to deal exclusively with Southern jobbers and importers. A project for establishing a line of steamers between Norfolk and European ports attained considerable momentum. Negotiations were carried on with various transportation interests in Europe, and a marine transport company was formed, to which the Virginia legislature gave substantial support. A damper was thrown on the project, however, by failure to obtain Federal mail subsidies.<sup>33</sup> Direct lines of steamers between Charleston and Europe and between New Orleans and Europe were also proposed. Mississippi gave its backing to the establishment of a port at Ship Island. In 1858 negotiations were carried on with Belgium looking to developing a direct trade between Memphis and Belgium.<sup>34</sup> Some of these projects, such as that of Charleston, were closely associated with schemes for railways, since a market in the hinterland must be found for the proposed expansion of imports.<sup>35</sup> None of the projects, however, attained the impetus of the Norfolk undertaking.<sup>36</sup>

More or less coincident with the agitation for direct trade was the movement for industrial diversification, based on dissatisfaction with the growing depend-

<sup>30</sup> *Ibid.*, 328; *Southern Agriculturist*, II, 204; Russel, *Economic Aspects of Southern Sectionalism*, 191.

<sup>31</sup> For detailed expressions of these various opinions, see *ibid.*, 16, 19-25, 46-49, 99, 104, 190, 194.

<sup>32</sup> *Ibid.*, 93 et seq.

<sup>33</sup> *De Bow's Review*, XIV, 125, 500, 524; XXII, 513-517; XXIII, 375; XXVI, 1-23, 585; cf. Russel, *Economic Aspects of Southern Sectionalism*, 113-117, 121-122.

<sup>34</sup> *De Bow's Review*, XXVI, 113; XXVII, 100; XXVIII, 462.

<sup>35</sup> See, for instance, *Southern Agriculturist*, XII, 237-248, 344. Concerning the various attempts to promote direct trade between Charleston and Europe, see Van Deusen, *Economic Bases of Disunion in South Carolina*, 192-207.

<sup>36</sup> *De Bow's Review*, XVIII, 68.

ence on the North for manufactured commodities, frequently made from raw materials produced in the South. It was asserted that cotton goods manufactured in Georgia were sent to New York for sale and then resold by New York jobbers to Georgia retailers.<sup>37</sup> This universal dependence was expressed by Albert Pike at the New Orleans convention of 1855:<sup>38</sup>

"From the rattle with which the nurse tickles the ear of the child born in the south to the shroud that covers the cold form of the dead, everything comes to us from the north. We rise from between sheets made in northern looms, and pillows of northern feathers, to wash in basins made in the north, dry our beards on northern towels, and dress ourselves in garments woven in northern looms; we eat from northern plates and dishes; our rooms are swept with northern brooms, our gardens dug with northern spades, and our bread kneaded in trays or dishes of northern wood or tin; and the very wood which feeds our fires is cut with northern axes, helved with hickory brought from Connecticut and New York."

At first the movement for manufacturing encountered a lordly aversion to nonagricultural pursuits. Some even felt the inconsistency of opposing the protective tariff while encouraging industry. But the severe depression of the forties, which promoted sentiment for diversified agriculture, also shook the foundations of the philosophy that acclaimed an agricultural civilization. About the beginning of the fifth decade the idea of industrial diversification was eloquently espoused by General George McDuffie and Governor James Hammond, of South Carolina, and it was strongly supported by William Gregg on the basis of his pioneer experiments in textile manufacturing at Graniteville, South Carolina.<sup>39</sup> As the shadow of the impending struggle grew deeper, the danger of the economic dependence of the South came to be more and more apparent. Resolutions were introduced in the conventions for the establishment of foundries, machine shops, and cotton factories; the levying of retaliatory direct taxes upon goods imported from the North; exemption of the products of Southern factories from sales taxes, and agreements boycotting Northern products. There were orations expounding the dignity of labor and movements to establish mechanics' institutes and trade schools.<sup>40</sup> The desire to make the South economically independent led to a great variety of proposals, including discriminatory direct taxes on goods imported from the North and sold in Southern markets, mail subsidies for Southern steamship lines, establishment of steamship lines to the Amazon, the construction of a canal across Florida, a Southern Pacific railway, river and harbor improvement, a fairer appropriation of Southern lands for the encouragement of Southern railway building, abolition of the duty on railway iron, and education of Southern seamen. The rising tide of sectionalism was manifested in resolutions for the building up of a common school system in the South, publication of Southern school books, establishment of a Southern university, exclusive patronage of

<sup>37</sup> *De Bow's Review*, XI, 80; XVIII, 322; Olmsted, F. L., *Seaboard Slave States*, II, 184.

<sup>38</sup> *De Bow's Review*, XVIII, 524; cf. *ibid.*, XI, 132-138; XIX, 1-22; *Southern Cultivator*, VI, 24.

<sup>39</sup> *Carolina Planter* (1840), pp. 378-380; *Farmers' Register*, IX, 91-95; *Niles' Register*, LXII, 87; Russel, *Economic Aspects of Southern Sectionalism*, 155; Coulter, "Southern Agriculture and Southern Nationalism before the Civil War," in *Agricultural History*, IV, 78, 80-85.

<sup>40</sup> *De Bow's Review*, XXII, 86, 96-100; Russel, *Economic Aspects of Southern Sectionalism*, 44, 51, 154-157, 166-178.

Southern summer resorts, and expansion of slavery to the northwest and southward into the tropics.

The movement had a connection with a growing, though probably a scarcely justifiable, concern regarding the numerous poor whites and highlanders, the grounds for which were forcibly stated just at the close of the period by Hinton Rowan Helper.<sup>41</sup> Some Southern leaders were afraid that greater economic independence might turn the poor whites into abolitionists,<sup>42</sup> but others alleged that their growing discontent might be alleviated by the development of diversified industry, which would provide them employment. Projects were brought forward for furnishing home employment for this class; for instance, the plaiting of straw for women's bonnets.<sup>43</sup> A resolution passed at the Knoxville convention to exempt from liability for debts one or more slaves to each slaveholder<sup>44</sup> probably reflected in part a desire to propitiate the large class of small slaveholders. The concern, however, was probably premature. By an analysis of the election returns for 1860 Professor David Y. Thomas has shown that the nonslaveholding class were not moved uniformly by strong antislavery sentiment, for a large number of nonslaveholding counties voted the radical proslavery ticket.<sup>45</sup>

INFLUENCE OF AGRICULTURAL COMPETITION FOR LABOR AND CAPITAL  
IN LIMITING INDUSTRIAL DIVERSIFICATION

It gradually became clear, however, that the economic backwardness of the South was due to fundamental conditions, and that artificial measures and eloquent resolutions were impotent to realize the economic ambitions of the Southern States. It was the misfortune of the South that the great mass of its labor was of exceedingly low quality for nonagricultural activities. In spite of agitation for industrialization there continued to be considerable prejudice against manufacturing. For a time Charleston, South Carolina, had ordinances against machinery operated by steam, because of the smoke nuisance. There were few captains of industry possessing technical skill and experience for the rapid development of factory industries. While there was an abundant supply of white labor, it was not easy to transform the poor whites and mountain whites into efficient factory employees. Accustomed to rude independence, they were frequently undisciplined, slovenly, careless, and intractable.<sup>46</sup>

Another very important limitation on industrial diversification was the powerful competition of an agriculture favored by an abundant supply of virgin soils, for the available labor and capital.<sup>47</sup> Thus, after the close of the War of 1812, the numerous small custom-order establishments of the lower South, which supplemented the domestic manufactures of the Southern plantations and farms,

<sup>41</sup> *The Impending Crisis of the South*, especially Chap. X.

<sup>42</sup> Russel, *Economic Aspects of Southern Sectionalism*, 51-54. See above, pp. 487, 874.

<sup>43</sup> *De Bow's Review*, VIII, 25, 514; *Southern Planter*, VIII, 183.

<sup>44</sup> *De Bow's Review*, XXIII, 211 & n., 305, 308, 311.

<sup>45</sup> "Southern Non-Slaveholders in the Election of 1860," in *Political Science Quarterly*, XXVI, 222-237.

<sup>46</sup> Russel, *Economic Aspects of Southern Sectionalism*, 62; *De Bow's Review*, VIII, 25, 140; *Southern Agriculturist*, I, 357.

<sup>47</sup> For an early recognition of this important factor, see McCay, *Cultivation of Cotton (One Hundred Years' Progress of the United States)*, 114-116.

were gradually abandoned under the influence of the all-absorbing passion for cotton production, and the increasing competition of cheap products from Northern factories. Only in interior districts of the lower South, protected by isolation from outside competition, a few of the small custom-order establishments continued to produce for the local market.<sup>48</sup> Until the agricultural depression of the fifth decade there was a widespread belief that capital invested in land and slaves was more profitable than in other lines of investment.<sup>49</sup> In the last decade of the ante bellum period it was noted that the high prices of cotton and the resulting rise in prices of slaves diminished the profits of Southern cotton factories. The high profits to be made from planting cotton diverted the available capital and labor back into agriculture.<sup>50</sup> The Civil War brought to an end a keen struggle between agriculture and other industries for the employment of Southern labor.<sup>51</sup> Had the project to reopen the slave trade been successful, there would probably have occurred a greater diversification of industry. To an even greater extent this result would have followed a considerable immigration of free laborers from Europe, such as the North enjoyed. It was scarcity of labor, as well as scarcity of capital, that afforded an effective check to the evolution of diversified industry.

In spite of these disadvantages some progress was made toward industrial diversification, and in the case of several important industries the assumption that Negro slaves were incapable of effective employment was disproved. A number of cotton factories were operated in whole or in part by slave labor, and it was found that slaves were capable of performing effectively many of the simpler routine operations.<sup>52</sup> On the Cumberland river, in Tennessee, nearly 60 per cent of the laborers in the iron industry were slaves,<sup>53</sup> and they were employed elsewhere for coal mining. In 1842 slave labor was introduced in the Tredegar ironworks at Richmond, Virginia, as an experiment. They were so successfully trained in the processes of puddling, beating, and rolling that after 1845 they constituted the majority of the operatives. In the lumbering industry in North Carolina slave labor was very profitable.<sup>54</sup> Slaves were successfully employed in mining, quarrying, canal-building, and railway construction, in which lines of employment contractors frequently preferred slave labor. In Georgia more than 1,000 miles of railroad were constructed by slaves, and in North Carolina 223 miles.<sup>55</sup>

<sup>48</sup> Phillips, U. B., *Plantation and Frontier*, II, 326-336; *Southern Cultivator*, XV, 261; Melish, *Travels*, II, 179, 181, 186-188; Olmsted, F. L., *Journey through Texas*, 19; Clark, V. S., *History of Manufactures*, I, 556.

<sup>49</sup> Russel, *Economic Aspects of Southern Sectionalism*, 24.

<sup>50</sup> *Hunt's Merchants' Magazine*, XXIV, 263; *De Bow's Review*, XIII, 71; *Southern Cultivator*, III, 134; VII, 168; cf. Shryock, "Early Industrial Revolution in the Empire State," in *Georgia Historical Quarterly*, XI, 118.

<sup>51</sup> See *De Bow's Review*, XVI, 443; Olmsted, F. L., *Cotton Kingdom*, I, 111.

<sup>52</sup> *De Bow's Review*, III, 196; IV, 256; VII, 372; VIII, 76; XIII, 64; *Hunt's Merchants' Magazine*, XXV, 517; XXXVIII, 509; XXXIX, 755; cf. Van Deusen, *Economic Bases of Disunion in South Carolina*, 267.

<sup>53</sup> *Hunt's Merchants' Magazine*, XXVIII, 645; *Farmers' Register*, V, 315.

<sup>54</sup> Bruce, K., "Slave Labor in the Virginia Iron Industry," in *William and Mary Quarterly*, 2 series, VI, 291-302; *De Bow's Review*, XVI, 592. See below, p. 467.

<sup>55</sup> *De Bow's Review*, XVI, 443; XVIII, 405; XXIV, 212.

The progress of power manufacturing was not inconsiderable. In 1827 a cotton factory was established at Petersburg, Virginia, and by 1834 cotton factories had sprung up at several other points in the State. A cotton factory was established at Pendleton, South Carolina, in 1827, and another two years later.<sup>56</sup> In 1835 Alabama granted a charter to the Tuscaloosa Manufacturing Company. In the same year the Alabama Mining and Manufacturing Company was incorporated with a capital of \$350,000, authorized to operate mines and to manufacture textiles.<sup>57</sup> A rapid increase of cotton manufacturing occurred after 1845. Factories began to spring up along the fall line from Virginia to Alabama.<sup>58</sup> By 1849, for instance, Columbus, Georgia, boasted twelve factories.<sup>59</sup> The zeal for manufacturing even extended to the lowlands, where the advantages of water power were lacking. In Mississippi six textile companies were chartered in 1850.<sup>60</sup> In Alabama upwards of twenty companies were chartered between 1849 and 1854, some of them in the lowlands.<sup>61</sup> In 1840 the amount of capital invested in Southern cotton manufacturing was \$5,965,978, or 11½ per cent of the entire capital value of the industry in the United States. By 1860 the total capital of Southern cotton factories had nearly doubled.<sup>62</sup> It was already recognized that the South possessed many of the advantages that have made possible the rapid growth of cotton manufacturing since the war.<sup>63</sup> The South enjoyed a differential of about a cent a pound in cost of transport, wages were lower than in New England, although the quality of Southern labor was inferior; and the Southern factories, located frequently in the open country or in small villages, were at little expense for land rent.<sup>64</sup> Here and there iron industries developed, especially along the lower Tennessee river in Tennessee and Kentucky, where the industry was begun as early as 1814; along the Cumberland, in southern Tennessee; in the northern part of the Shenandoah valley; and in western Maryland.<sup>65</sup> Nevertheless, although the capital invested in Southern cotton, woolen, and iron factories increased much more rapidly between 1840 and 1860 than in the United States as a whole, the South was falling behind the rest of the country in relative amount of all manufacturing. In 1840 the capital invested in manufacturing in the South was nearly 20 per cent of the total for the United States. (See Table 54, Appendix.) Between 1840 and 1850 Southern manufacturing capital increased nearly 76 per cent, while it nearly doubled in the United States as a whole. By 1850 manufacturing capital in the South was but 17.6 per cent

<sup>56</sup> *Virginia Herald* (Fredericksburg), Aug. 4, 1827; May 30, 1829; *Farmers' Register*, I, 213.

<sup>57</sup> *Alabama Session Laws*, 1834-35, p. 63; 1835-36, pp. 70-74.

<sup>58</sup> Clark, V. S., *History of Manufactures*, I, 557.

<sup>59</sup> *Nashville Daily Union*, July 18, 1849.

<sup>60</sup> *Mississippi Session Laws*, 1850, pp. 377, 383, 388, 439, 451, 462.

<sup>61</sup> *Alabama Session Laws*, 1849-1854, *passim*.

<sup>62</sup> *United States Census*, 1840, p. 408; 1860, *Manufactures*, *passim*.

<sup>63</sup> James, *Practical Hints on the Comparative Cost and Productiveness of the Culture and Manufacture of Cotton*; *idem*, *Letters on the Culture and Manufacture of Cotton*.

<sup>64</sup> *De Bow's Review*, VII, 51, 176, 545; VIII, 465; XII, 189; *Hunt's Merchants' Magazine*, XXI, 573; Olmsted, F. L., *Seaboard Slave States*, II, 184; *cf.* Van Deusen, *Economic Bases of Disunion in South Carolina*, 265-270.

<sup>65</sup> Spence, *Hickman County*, 166; *De Bow's Review*, IV, 408; *Hunt's Merchants' Magazine*, XXVIII, 644. See the map showing location of furnaces and rolling mills in 1859, in Clark, V. S., *History of Manufactures*, I, Plate 3, facing p. 504.

of the total for the United States. Although capital invested in manufacturing in the South increased 75 per cent in the last decade of the period, the increase in the rest of the country was even more rapid, and by 1860 Southern manufacturing capital was less than 16 per cent of the national total. Moreover, the increase in capital and value of output during the last decade was due very largely to notable increases in processing industries, such as the manufacture of flour and meal, tobacco manufacture, sawing and planing lumber, and the manufacture of turpentine.<sup>66</sup>

The lumbering industry furnished employment for large numbers of slaves during the fifth decade, especially in North Carolina. Pine lands are said to have risen suddenly 200 or 300 per cent in value, and local prices of Negroes increased 50 per cent. Small planters from the western part of the State moved into the lowlands to employ their slaves in the profitable industry.<sup>67</sup> There was also great activity in lumbering in southeastern Georgia.<sup>68</sup> In the decade before the war Northern capital expanded the lumber industry in northern Florida and in southern Alabama and Mississippi; and Pensacola, Mobile, and New Orleans became the ports for an extensive lumber trade.<sup>69</sup>

#### ATTITUDE OF SOUTHERN OPINION TOWARD THE FUNDAMENTALS OF THE SOUTHERN ECONOMIC SYSTEM

The decline in the relative economic position of the South, its failure to keep pace with the free society of the North in industrial diversification, and criticisms by antislavery agitators directed the thought of the South to an analysis of its fundamental economic conditions, particularly the available supply of land and labor.

There was considerable difference of opinion whether primary emphasis should be given to increasing the land area or to increasing the supply of slave labor. It has already been pointed out that the idea of territorial expansion, as manifested in filibustering expeditions and in the struggle over the territories, was primarily political and constitutional.<sup>70</sup>

The sentiment in favor of increasing the supply of slave labor, which resulted in the movement for reopening the slave trade already described,<sup>71</sup> was the outcome of a growing conviction on the part of many thoughtful men that the economic woes of the South were due largely to scarcity of labor in proportion to land area. The possibility of supplying the increasing demand for cotton was limited not by lack of good land for further expansion but rather by the available supply of Negro labor. The exclusion of African labor greatly restricted the increase of Southern population, whereas the North was enjoying the benefits of a steady stream of immigrants. The growing scarcity of labor contributed after 1850 to higher prices for cotton and steadily rising prices of slaves, and the

<sup>66</sup> Russel, *Economic Aspects of Southern Sectionalism*, 228.

<sup>67</sup> *De Bow's Review*, I, 481.

<sup>68</sup> White, G., *Statistics of Georgia*, 535, 540.

<sup>69</sup> *De Bow's Review*, VIII, 451; IX, 118; XIV, 66; XVI, 592; XVIII, 188; XIX, 486-489, 611; XXIII, 486; XXVII, 105, 719.

<sup>70</sup> See above, p. 642.

<sup>71</sup> See above, p. 668.

latter, as we have noted, checked the progress of the diversification of industry. Thus, the hopes of many Southern reformers, eloquently voiced at the various conventions, seemed doomed to disappointment, and certain leaders concluded that the diversification of Southern industry and the elaboration of the economic and social life could be achieved only by a denser laboring population, brought about by reopening the slave trade. In agriculture itself the slipshod and wasteful methods were attributed to the high value of labor and the relatively low value of land. It was argued that, given a plentiful labor supply, labor would be employed in soil-preserving methods, that the increase of slaves would result in a large rise of land values, and that the value of the existing slave stock would not greatly depreciate, because of the great economic superiority of the already educated and trained slaves as compared with those newly imported. The advocates of the policy pointed out that the rising prices of slaves tended to concentrate ownership in the hands of the wealthier and abler members of the planting class, with the possible result of the ultimate loss of support by the small farmers of the South. It was argued that acquisition of new territory was useless without first increasing the supply of slaves, for otherwise the older States would be drained of their slave populations, and ultimately lost to the Southern cause. A plentiful supply of slaves would make it unnecessary to encourage white immigration, likely to endanger Southern institutions. Stress was also laid on the political advantage of increasing Southern representation in Congress.<sup>72</sup>

Opponents of the measure predicted a resulting decrease in slave values and in cotton prices, which would not be accompanied by a decrease in the prices of the necessities and luxuries consumed by the planter, while slave owners would find the benefits involved in cheap labor more than offset by the personal losses through the fall in the value of slaves. The border States would be deprived of the lucrative slave trade to the lower South. Finally, the greater cheapness of slaves would result in the brutalizing of the institution until a régime similar to that which had existed in the West Indies would prevail.<sup>73</sup> However sound its economic logic, the proposal involved too many political disabilities to receive a large measure of support. It was recognized as a proposal of extreme disunionists, and was heartily disapproved by the cooler-headed leaders.

If the great depression of the fifth decade made the South discontented with its economic system, the prosperity of the sixth decade in a measure restored confidence in the soundness of Southern economic institutions even as it increased enormously the material values at stake and the determination of slave owners to defend those values at any cost. Agricultural prosperity led to a return to the older philosophy of glorifying agriculture and a tendency to emphasize how much the North would lose financially by a separation from the South. Southern apologists complacently comforted themselves with the "Cotton is King"

<sup>72</sup> *Southern Cultivator*, XV, 75; XVI, 137-139, 266, 363; *De Bow's Review*, XXI, 177-186; XXIII 477; XXIV, 207, 360-365, 468-471. See the argument by Governor Adams, of South Carolina, in his message to the legislature. South Carolina, *House Journal*, 1856, p. 34. The various arguments pro and contra are given in Van Deusen, *Economic Bases of Disunion in South Carolina*, 312-318.

<sup>73</sup> *De Bow's Review*, XXIV, 214-220, 360-362, 470; XXV, 174; XXVI, 52; XXVII, 214-220, 364; *North Carolina Planter*, II, 258.

argument and prepared elaborate statistical calculations to demonstrate that in proportion to population the South was wealthier than the North. Where for a time there had been a tendency to temporize with protectionism, there was a swing back to the philosophy of free trade. Since Southern banks were running over with funds in the last few years of the period, financial subservience to the North was felt less keenly.<sup>74</sup> However, even when there was widespread dissatisfaction with economic conditions, the dominant Southern sentiment refused to attribute Southern disabilities to the institution of slavery. Scarcity of labor or of capital, even the slothfulness of the planting class, might be charged with the responsibility for Southern backwardness; but slavery, never.

In the earlier time, before the growth of the Abolition Movement, Southern leaders had been free to admit the shortcomings of the slavery system; and its abolition might have been favored by a majority of Southern leaders if there had appeared any means of solving the problem of what to do with the free Negro. Throughout the slavery period this was the insuperable difficulty that caused a large proportion of the Southern people, including nonslaveholders, to support the institution. To the average Southerner wholesale emancipation was unthinkable; such a policy promised nothing but anarchy,<sup>75</sup> as suggested by the experiment in Liberia and by the economic and social disorganization that resulted from emancipation in the West Indies. The degradation of the free Negroes of the North offered an object lesson that afforded additional confirmation of the Southern position; and Southern apologists never wearied in accumulating convincing statistics showing the high death rate and high percentages of criminality, illiteracy, and pauperism among Northern free Negroes.<sup>76</sup> During the first thirty years of the nineteenth century many hopes were built upon the policy of colonization. In his private correspondence James Madison proposed that the proceeds of the public lands be used to purchase slaves and transport them to Africa, estimating the total cost at \$600,000,000.<sup>77</sup> Planters sometimes formed associations for the manumission and transport of the future offspring of their slaves.<sup>78</sup> There were interesting proposals for and experiments in the gradual amortization of slave values.<sup>79</sup> The State of Maryland even cherished hopes of ridding itself ultimately of slavery. By a number of legislative acts slave immigration was excluded from the State either by taxation or by absolute exclusion, and the State pledged its credit to a maximum of \$200,000 to aid the American Colonization Society in transporting emancipated Negroes to Africa. The magnitude of the task, however, was discouraging, and the policy of transport was not vigorously pursued.<sup>80</sup> In 1832 Thomas R. Dew brought forward the Malthusian doctrine of population to prove that any scheme of gradual emancipation

<sup>74</sup> Russel, *Economic Aspects of Southern Sectionalism*, especially pp. 80-82, 144, 166, 182, 193, 204-209.

<sup>75</sup> Olmsted, F. L., *Journey in the Back Country*, *passim*.

<sup>76</sup> Dew, *Review of the Debate of the Virginia Legislature of 1831 and 1832*, p. 95; *De Bow's Review*, VIII, 253; XXI, 308; XXIII, 546-552; XXV, 27-38; XXVII, 56-73, 526-549, 583-594, 731-733; XXVIII, 87-100, 201-213, 440-460, 573-581.

<sup>77</sup> *Writings* (Hunt), VIII, 439-447.

<sup>78</sup> For instance, see *Niles' Register*, XLII, 300.

<sup>79</sup> For instance, see McDonogh, *Papers* (Edwards), 44-58.

<sup>80</sup> Brackett, *The Negro in Maryland*, 65-71, 165-171.



and colonization would be rendered futile by the fact that the remaining blacks would multiply so much the more rapidly.<sup>81</sup>

Gradually, under the acrimonious criticism of the Abolitionists, the exponents of proslavery philosophy shifted their position; instead of defending slavery as a necessary evil, they began to justify it as a desirable economic and social system. George Fitzhugh, for instance, pointed out the essentially anarchistic character of Abolitionist doctrines, and exhorted all true conservatives, including slaveholders, to resist a doctrine that threatened the foundations of society. Fitzhugh asserted Negro slavery to be only one phase of a condition of unfreedom which was not only universal but also necessary to social stability. Among civilized, as well as primitive peoples, there prevails the practice of control and exploitation of the weak by the strong. The slave appeared only nominally less free than the factory laborers of Europe. In short, according to Fitzhugh, a sort of cannibalism prevails throughout society. As a necessary phase of social organization, contributing to social stability, slavery in all forms should be upheld. The Southern apologist should cease to defend Negro slavery as justified merely by the inferiority of the Negro race. He should strengthen his position by defending slavery as an aspect of a universal principle of dependence applicable to all peoples.<sup>82</sup> Some apologists, such as Chancellor Harper, Dew, and Governor Hammond, made much of the well-being of the great body of the slaves, especially as compared with conditions prevailing in Africa, and even in comparison with the condition of the laboring classes in Europe and the North. Adequate confirmation was found in the Old Testament by those who desired theological support.<sup>83</sup> Edmund Ruffin maintained the doctrine that the régime of "free" industrial labor emerges at a stage when population is so dense that labor can be obtained without legal coercion, at barely subsistence wages. Starvation takes the place of the overseer's lash, and this is "the most perfect and profitable condition of industrial operations for the class of capitalists and employers, and also for the most rapid increase of general and national wealth."<sup>84</sup> Much capital was made of the sore spots of the system of free labor—the misery and starvation, the periods of unemployment, the brutal treatment of women and children revealed by English factory inquiries, and the discontent manifested in the various "isms" of the time.<sup>85</sup>

It is unlikely that these sophistries represented the convictions of the majority of the thinking people of the South. In last analysis, however, the proslavery arguments were built upon one solid rock of truth—slavery as an institution was justified economically, if not ethically, by the constituent ethnic elements of the South and by the stage of economic evolution which the section had attained.

<sup>81</sup> *Review of the Debate of the Virginia Legislature of 1831 and 1832*, pp. 53–55, 57–60, 69; Reed & Matheson, *Narrative of the Visit to the American Churches*, II, 259.

<sup>82</sup> *Cannibals All or, Slaves without Masters*, *passim*, especially Chap. XXV.

<sup>83</sup> *De Bow's Review*, VIII, 235–241, 253–262.

<sup>84</sup> *Political Economy of Slavery*, 6.

<sup>85</sup> Olmsted, F. L., *Journey in the Back Country*, 381–384; Smith, W. A., *Philosophy and Practice of Slavery*, *passim*; Mackay, *Life and Liberty in America*, II, Chap. IV; Dew, *Review of the Debate of the Virginia Legislature of 1831 and 1832*, p. 103; Bledsoe, *Essay on Liberty and Slavery*, *passim*; *De Bow's Review*, VIII, 339; X, 52; XVIII, 185–187; XXI, 331–349; XXII, 149–166, 225–248, 449–462; XXIII, 337–348; XXIV, 269–274; XXV, 308; XXVI, 29–38; XXVIII, 48–66.

Under favorable price conditions it was exceedingly profitable, and it appeared to be the only feasible system for the effective economic control and direction of the multitude of ignorant black laborers.

#### ECONOMIC DISADVANTAGES OF SLAVERY TO THE SOUTH AS A WHOLE

Although slavery was profitable from an individual point of view and for certain uses conferred a competitive superiority as compared with free labor,<sup>86</sup> its ultimate influence upon the economic well-being of the South was pernicious. The blinding influence of prejudice during the antislavery controversy resulted in overemphasizing some of the evils and underestimating others that were more serious. For instance, it was absurd to regard slavery as mainly responsible for the exploitation of the soil, the result of an abundance of natural resources.<sup>87</sup> Moreover, antislavery critics wasted an undue amount of ink in emphasizing the lazy, slipshod, careless methods which were said to be the result of slavery. As already noted, it was precisely in those districts where plantation organization was most fully developed that agriculture was most effectively carried on. The plantation system, however, was a commercial system. It was capable of being carried on profitably only where conditions of production and marketing were favorable. In the extensive regions where a commercial and capitalistic economy was not feasible, the general tendency was away from large holdings and the strict discipline and organization of the plantations. These regions suffered most from the ignorance and inefficiency of Negro labor, for the process of leavening and assimilating so large a lump of ignorance and poverty is necessarily slow.

Although it is probable that Southern planters were not keen to encourage white immigration,<sup>88</sup> serious consequences were occasioned by the relatively small volume of immigration from outside the section into the older Southern States during the last few decades of the ante bellum period. It is probable that slavery was not alone responsible for the relatively small share of the South in immigration, for the difficulty of stimulating immigration to the South for many decades after emancipation suggests that climatic and industrial characteristics were probably important; nevertheless, slavery was certainly a factor of considerable weight. The resulting scarcity of labor and of capital were responsible for the fact that the South, and particularly the lower South, continued to be mainly an agricultural section, and consequently subject to the disadvantages characteristic of a predominantly agricultural country.<sup>89</sup> The sparseness of the free population made it difficult to develop roads, schools, and churches. The stimulus of personal contact and of a diversified commercial life was lacking. In the absence of local centers of population and of local markets commercial agri-

<sup>86</sup> See above, Chap. XX.

<sup>87</sup> See above, pp. 445-448.

<sup>88</sup> Russel, *Economic Aspects of Southern Sectionalism*, 223.

<sup>89</sup> These disadvantages are most strongly emphasized by Friedrich List, in his *National System of Political Economy*, especially Chaps. III, VII-VIII, and X. For special application to the South, cf. Halle, *Baumwollproduktion*, I, 47. For recognition of the disadvantages by Southerners of the diversification school, see Russel, *Economic Aspects of Southern Sectionalism*, 48-50.

culture was dependent upon locations convenient for exportation. The great interior regions remote from market, in which lived a great part of the free population, were limited to a self-sufficing economy, in many cases little in advance of the pioneer stage. In these regions there was a surplus of food products but an absence of the other comforts and conveniences of life. Because of the ease of producing sufficient food and the inability to market the surplus, there was little reason for the practice of efficient methods, and but little opportunity of employing the surplus labor. Easy-going, careless methods incurred no penalty. Even in the regions of commercial agriculture there was no market for anything but the staples. In periods of price depression the entire industrial life became disorganized. For articles of convenience and comfort, as well as for the implements and machinery required for agriculture, it was necessary to depend on crude local artisans or to import from great distances, often in small quantities, on individual orders, and at great expense.<sup>90</sup>

The lot of the white artisan class, especially in those older sections where for some decades there was a plethora of slave labor, was rendered no less unhappy than that of the small white farmers. The competition of slave labor in mechanical employments was probably less injurious economically than in the social stigma that it created, a fact which accounts for the activity of associations of white laborers in seeking legislative relief, during the last few years of the period, although there was an active demand for employees.<sup>91</sup>

One of the most serious disadvantages of the slavery system was the slow accumulation of local capital, the causes of which have already been considered.<sup>92</sup> Scarcity of capital retarded the adoption of labor-saving devices, and thereby intensified the scarcity of labor in the latter part of the period. On account of scarcity of labor in proportion to the supply of land the land resources and the human resources of the section were inadequately or wastefully used. The specialized character of industry made it impossible to develop fully all the natural resources, and the relative abundance of land resulted in wasteful utilization.

There was not sufficient diversity of employment to make full use of the human talents. Even the members of the planting class, with a relatively large freedom of movement and abundant opportunities for education, found themselves limited either to the gentlemanly pursuit of agriculture or to a few professions. The great masses of the non-planting free population were condemned to a simple, humdrum existence that offered no outlet for natural talent or ability.

The practice of capitalizing so large a part of the labor of the country was also a source of profound disturbance to the economic life. In the case of free labor, the superior economic advantages of one industry or region as compared with another result in a more or less ready transfer of labor from less profitable industries to more profitable employments. In the case of slave labor, however, the difficulties of effecting this transfer were greatly intensified, for the high capital values represented by the capitalization of the future earnings of the slaves

<sup>90</sup> Olmsted, F. L., *Cotton Kingdom*, I, 20-27, 137-140.

<sup>91</sup> For instances, see Russel, *Economic Aspects of Southern Sectionalism*, 219.

<sup>92</sup> See above, pp. 459-461.

must also be transferred,<sup>93</sup> and such transfers were further inhibited by sentiment against sale. Moreover, on account of the capitalization of the labor supply the whole process of economic expansion was far more disastrous in its influence on the older Southern regions than in the North. If a state of equilibrium had been established, and if, in consequence, the westward shifting of population had ceased, industrial prosperity might have become more uniform throughout the planting regions. George M. Weston, a discerning contemporary student of Southern economic conditions, attributed the impoverishment of the South in part to the "unnatural diffusion of their population over new territories."<sup>94</sup> This was merely recognition of a fact, already noted, that the process of expansion, rather than the institution of slavery, was mainly responsible for the industrial demoralization of the older regions. Slavery, however, retarded the development of the compensating conditions—immigration and industrial diversification—which in the North alleviated the "growing-pains" of agricultural expansion. Hence we have the near-paradox of an economic institution competitively effective under certain conditions, but essentially regressive in its influence on the socio-economic evolution of the section where it prevailed.

<sup>93</sup> For a statement of this point, see Phillips, U. B., "Economic Cost of Slaveholding in the Cotton Belt," in *Political Science Quarterly*, XX.

<sup>94</sup> *Progress of Slavery*, 209.

## BIBLIOGRAPHY



## BIBLIOGRAPHICAL INTRODUCTION

Bibliographies, 945. Monographs, 945. Other Secondary Material, 947. Source Material, 948.

The following list of manuscript materials, periodicals, pamphlets, and books which have been cited in the course of this work<sup>1</sup> is not represented as an exhaustive, or even a selective bibliography of Southern agriculture in the ante bellum period. A number of titles appear because they contributed some fragment of value, even though the works themselves would not belong in a selective bibliography of Southern agricultural history. On the other hand, to list every work in which something might be found having a direct or collateral bearing on the subject would require the inclusion of nearly everything written about the South during the nearly three centuries from Jamestown to the Civil War, and such a bibliography would run to many volumes. It is hoped, nevertheless, that the list of materials used will contain helpful suggestions to other students of this subject.

For so extensive a field a critical discussion of even the most significant sources would require far greater space than is allowable for these introductory comments. Furthermore, the sources of economic history are very largely identical with the sources of political history, and critical comments would, in many instances, be trite. This discussion is restricted, therefore, to a few general observations concerning the various classes of materials most significant for the study of Southern agricultural history.

### BIBLIOGRAPHIES

On the general bibliographies of American or Southern history it is not necessary to dwell. Some of those found useful in the preparation of this work are listed in the bibliography. The recently issued *Bibliography of the History of Agriculture in the United States*, by Everett E. Edwards, contains an extensive list of significant secondary and source materials. Because of their special agricultural significance, mention should be made of Tucker's partial bibliography of *American Agricultural Periodicals*, Swem's *Analysis of Ruffin's Farmers' Register, with a Bibliography of Edmund Ruffin*, and also his *A List of Manuscripts Relating to the History of Agriculture in Virginia, Collected by N. F. Cabell and Now in the Virginia State Library*. There are a number of trial bibliographies for particular Southern States. In this connection should be mentioned also several useful calendars of documents in foreign public record offices relating to particular Southern States, which give abstracts of contents as well as titles, such as *List and Abstract of Documents and Papers in the State Paper Office, London, Relating to South Carolina*, and Mrs. Surrey's *Calendar of Manuscripts in Paris Archives and Libraries Relating to the History of the Mississippi Valley*. The *British Calendar of State Papers, Colonial Series, America and West Indies*, and the *Calendar of State Papers, Domestic Series*, for the reigns of James I and Charles I, are indispensable.

### MONOGRAPHS

Several monographs on particular segments of Southern agriculture contain useful bibliographies, including Von Halle's *Baumwollproduktion und Pflanzungswirtschaft in den Nordamerikanischen Südstaaten*, Matthew B. Hammond's history of *The Cotton Industry*, and Craven's *Soil Exhaustion as a Factor in the Agricultural History of Vir-*

<sup>1</sup> No title has been listed that has not been cited in the footnotes, with the possible exception that in the course of shortening the text, titles may have been eliminated which did not happen to be cited elsewhere in the manuscript. On the other hand, many titles are omitted because on examination no material was found that fitted into the exposition.

ginia and Maryland. Bidwell and Falconer's *History of Agriculture in the Northern United States* contains some material helpful also for the study of Southern agriculture. Less comprehensive bibliographies will be found in a number of other monographs on various phases of American or Southern agriculture included in the list of works cited. Among the useful treatises, not all of which contain bibliographies, are Carrier's *Beginnings of Agriculture in America*; Carrier and Bort's *History of Kentucky Bluegrass and White Clover*; Carver's *Historical Sketch of American Agriculture*; Rodney True's *Early Development of Agricultural Societies*, his *John Binns of Loudoun*, and articles on the Albemarle Agricultural Society; the several monographs on the tobacco industry in various periods and localities by Jacobstein, Arnold, Rive, Tiedemann, and Brock; an unpublished monograph on the *Tobacco Industry in the Virginia-North Carolina Area since the Revolution*, by J. C. Robert; Salley's *Introduction of Rice Culture into South Carolina*; Whitaker's *Spanish Contribution to American Agriculture* and James Alexander Robertson's *Notes on the Transfer by Spain of Plants and Animals to Its Colonies Overseas*; Franklin's *Agriculture in Colonial North Carolina*; Cole's *Agricultural Craze*s; the section on cotton of the *Atlas of American Agriculture*, prepared under the immediate supervision of O. C. Stine; and *The Cotton Plant*, compiled in the Office of Experiment Stations, United States Department of Agriculture. G. F. Watkin's *King Cotton* is a useful work, exhibiting a good deal of original research and apparently reliable, but unfortunately without documentation. Of somewhat similar merits and limitations are the several studies of livestock in Missouri, by John Ashton. Interesting phases of Kentucky livestock history are contained in Parr's *Kentucky's Overland Trade* and T. D. Clark's *Live Stock Trade between Kentucky and the South*. Cabell's *Early History of Agriculture in Virginia and Some Fragments of an Intended Report on the Post-Revolutionary History of Agriculture in Virginia* exhibit a spirit of scholarship unusual for his day.

Helpful bibliographies, as well as significant materials for the study of Southern agriculture, will be found in numerous monographs bearing on various phases of Southern economic and social history. Bruce's *Economic History of Virginia in the Seventeenth Century* is a scholarly treatment of the subject and includes an extensive bibliography. The bibliography in Phillips' *American Negro Slavery* is unusually comprehensive, and the work itself is a notable presentation of the economic and social characteristics of Southern Negro slavery. A number of other monographs on slavery and servitude in particular States, containing in most cases useful bibliographies, will be found listed under the authorship of Ballagh, Bassett, McCormac, Brackett, Bugbee, McCrady, Trexler, McDougle, and Jervey. Du Bois' *Suppression of the African Slave-Trade to the United States* and Collins' *Domestic Slave-Trade in the Southern States* belong in this general field.

Monographs dealing with industry, commerce, and commercial policies contain important materials and bibliographies on phases of economic life closely interrelated with agriculture. These include the several notable monographs by George Louis Beer on the British colonial system, Collins' *Colonial Policy of England*, Bassett's *Relation between the Virginia Planter and the London Merchant*, Sioussat's *Virginia and the English Commercial System*, Schlesinger's *Colonial Merchants and the American Revolution*, Surrey's *Commerce of Louisiana*, Morriss' *Colonial Trade of Maryland*, Buck's *Organization of Anglo-American Trade*, Benn's *American Struggle for the British West India Carrying Trade*, Westerfield's *Middlemen in English Business*, Lord's *Industrial Experiments*, Tryon's *Household Manufactures*, Dickerson's *American Colonial Government*, and several monographs on the early chartered companies by Cawston and Keane, W. R. Scott, Epstein, Kingsbury, Benoit du Rey, Bonnassieux, Chailley-Bert, Cordier, and Pauliat.

Various monographs dealing with the expansion of the frontier and the struggle for colonial empire in America have an important significance for the student of Southern agricultural history, including Crane's illuminating *The Southern Frontier*, Roosevelt's



*Winning of the West*, Bolton's *Arredondo's Historical Proof of Spain's Title to Georgia*, Bolton and Ross' *The Debatable Land*, Alvord and Bidgood's *First Explorations of the Trans-Allegheny Region*, F. J. Turner's *The Old West*, and Paxson's *American Frontier*.

Land policy and tenure are so closely related to agriculture that monographs on these subjects afford important leads to facts and sources. There is a long list of treatises in this field, most of them equipped with bibliographies. Studies on land policy and tenure are available for Maryland, Virginia, and North Carolina, under the authorship of Gould, Johnson, Harrison, Bassett, Morgan, and Kennedy. No single monograph covers the subject for South Carolina. Henry A. M. Smith's *The Baronies of South Carolina* treats of one phase, and the fullest available discussion is in W. Roy Smith's *South Carolina as a Royal Province*. Chapters in McCain's *Georgia as a Proprietary Province* and Flippin's *Royal Government in Georgia* cover the subject for that Colony. For colonial Missouri Violette's *Spanish Land Claims* is helpful, and Hamilton's *Latin Land Laws and Land Systems* affords an introduction to land policy in colonial Louisiana. Significant general monographs on colonial land policy and tenure include A. C. Ford's *Colonial Precedents of Our National Land System*, Bond's *Quit-Rent System*, Sioussat's *Breakdown of the Royal Management of Lands in the Southern Provinces*, Ballagh's *Introduction to Southern Economic History—The Land System*, C. M. Andrew's article on the *Land System in the American Colonies*, and Sato's *History of the Land Question*. Southern State land policies is a neglected field. Available monographs include McLendon's *History of the Public Domain of Georgia* and McKittrick's *Public Land System in Texas*. Treatises on the various phases of national land policy by Hibbard, Treat, and Stephenson contain materials applicable to the South. Donaldson's compilation on Federal land administration and Jillson's *Kentucky Land Grants* are helpful. Cotterill's *National Land System in the South* and the studies of the Yazoo frauds, by Haskins and by Phillips respectively, deal with phases of Federal land administration in the South.

A large number of monographs, some already mentioned and others too numerous to mention here, are devoted primarily to the political history of particular Colonies or States in various periods. A number of these deal more or less extensively with economic conditions.

A number of writers have published monographs presenting general descriptions of Southern economic and social life. These include Phillips' *Life and Labor in the Old South*, Russel's *Economic Aspects of Southern Sectionalism*, and Dodd's *Expansion and Conflict* and *Cotton Kingdom*.

#### OTHER SECONDARY MATERIAL

A number of contemporary treatises on agriculture deserve to rank as sources because they reveal the state of theory and practice at the time when they were composed. For the colonial period these include the various works by John Bordley; John Binn's *Treatise on Practical Farming*; the anonymous *American Husbandry*, which appears to have been based only partly on first-hand observation; Tatham's *Essay on Tobacco*; and Jonathan Carver's *Treatise on the Culture of the Tobacco Plant*. For the post colonial period they include Jacquelin Ambler's *Treatise on the Culture of Lucerne*, John Taylor's *Arator*, Allston's *Essay on Sea Coast Crops*, Seabrook's *Memoir on Sea Island Cotton*, Ruffin's *Essay on Calcareous Manures* and his other technical writings, Gooch's *Prize Essay on Agriculture in Virginia*, Beatty's *Essays on Practical Agriculture*, Nicholas' *Rotation of Crops*, Leon's anonymous *Sugar Cultivation*, Forstall's *Productions of Louisiana*, Tuck's *Essay on Tobacco*, Watterston's *Memoir of the Tobacco Plant*, and Minor's *Notes on the Cultivation and Management of Tobacco*. The intense interest in cotton led to a large number of compilations on production, marketing, and trade which vary considerably in degree of solidity. Some were controversial, others superficial compilations, and still others show substantial scholarship.

Numerous monographic biographies of Southern leaders include a few which are

especially rich in data of significance for the subject of Southern agriculture, such as Haworth's *George Washington: Farmer*, Rowland's *George Mason*, Ravenel's *Eliza Pinckney*, and Wallace's *Henry Laurens*, to mention only a few.

A number of colonial so-called histories, though not written in accordance with standards of modern scholarship, are of value because of contemporary observations of the authors which give them the character of source material. Such, for instance, are Beverley's anonymous *History of Virginia*, Catesby's *Natural History of Carolina*, Lawson's *History of Carolina*, and Le Page du Pratz' *Histoire de la Louisiane*—all of unusual value because of the keen interest and shrewd observations of the respective authors in matters agricultural. Brickell's *Natural History of North Carolina* would be of greater value if it were not a wholesale plagiarism of Lawson's book. Numerous other colonial histories of later date and others written in the first half of the nineteenth century are in general of less value than the works named.

Of the hundreds of county and other local histories, the great majority are of little value either because of unsubstantial scholarship or because they are filled mainly with the biographies of inconsequential citizens or contemporary incidents of little significance for a general agricultural history. Notable exceptions, however, either by reason of superior scholarship or unusual amount of agricultural description, are such works as Salley's *Orangeburg County*, Gregg's *Old Cheraws*, Logan's *Upper Country of South Carolina*, Kercheval's *Valley of Virginia*, Wise's *Ye Kingdome of Accawmacke*, Harrell's *Gates County*, Lichtenstein's *Edgewcombe*, and Hamilton's *Colonial Mobile*, to name but a few.

A number of early British statistical treatises contain statistical material difficult to come at except in files of various British public offices. Such are Anderson's *Origin of Commerce*, Macpherson's *Annals of Commerce*, and Marshall's *Digest of All the Accounts, etc.* Somewhat similar works for America are Tench Coxe's *View of the United States*, Jay's *Statistical View of American Agriculture*, Pitkin's *Statistical View*, De Bow's *Industrial Resources*, and others. All of these works contain useful material in addition to statistical tables. Other statistical compilations of value include Woodbury's *Notes on Cotton*, the various series of price, production, and export statistics compiled by George K. Holmes, and the price statistics collected by Arthur G. Peterson. Invaluable are the various publications of the Bureau of the Census and the Bureau of Statistics of the Treasury Department.

For the legal status of slaves, the several treatises on the law of slavery by Cobb, Hurd, and Wheeler are extremely helpful.

#### SOURCE MATERIAL

Agricultural papers and journals, of course, are among the most important classes of source material. However, with the exception of the *Agricultural Museum*, which ran for a short time in 1810-1812, and the *American Farmer*, which was started in 1819, agricultural papers do not become available until the late twenties and early thirties. Probably as many as one hundred agricultural journals were initiated in the South before the Civil War, although the great majority died soon after birth or ran but one to three years. By diligent correspondence we have been able to obtain the use from various libraries of about forty different Southern agricultural journals, not all of which yielded citations. Some agricultural journals, such as the *Farmers' Register*, the *Southern Planter*, and the *Southern Cultivator*, run to a considerable number of volumes. A number of Northern agricultural journals, such as the *Cultivator* and the *Agriculturist*, have been found useful because they printed numerous articles and letters from Southern correspondents and travellers in the South. The general national or sectional economic journals of the period, especially those that continued for many years, such as *Hunt's Merchants' Magazine*, *De Bow's Review*, and *Niles' Register*, contain a vast amount of material of great value. A great deal of the material in agricultural periodicals, of course, is extremely local or consists of the reports of practices of the writers themselves, and is therefore not of sufficiently general application for a history of this character.

The same limitation applies to general newspapers, intensified by the fact that usually they devote much less space to matters of agricultural significance. In the preparation of the present work virtually all Southern newspapers in the Library of Congress published during the eighteenth century were examined for general materials. The large number of papers published after that time included in the bibliographical list were found helpful mainly for price quotations.

The transactions and proceedings of agricultural societies, or formal addresses sponsored by them, were usually published, if at all, in agricultural periodicals. A few societies, however, published separate reports that are of considerable value, such as the *Reports* of the Kentucky State Agricultural Society, the *Proceedings* of the Missouri State Agricultural Society, the *Memoirs* of the Virginia Society for Promoting Agriculture and the *Annual Reports* of the Virginia State Agricultural Society, and the several published reports and other materials for the State societies of South Carolina, which bore various names in different periods. The *Journal* and *Monthly Bulletin* of the United States Agricultural Society contain a good many communications from Southern planters as well as other material concerning Southern agriculture. The considerable number of printed annual addresses, while largely worshipping at the shrine of oratory, are occasionally concrete and informative.

Several of the States, including Virginia, Tennessee, and North Carolina, established State boards of agriculture, or bureaus, and the annual reports of these agencies contain considerable information concerning local agricultural conditions and undertakings. Something like formal agricultural surveys of the English pattern were made by Edmund Ruffin in South Carolina and by Eugene Hilgard in Mississippi. A number of the States published the results of geological surveys, which contain more or less agricultural material.

Colonial statutes and records of legislative sessions are of great value for agricultural history because of the large amount of regulation affecting agriculture, agricultural trade, land policy and tenure, and the status of agricultural laborers. The swing from Mercantilism to *laissez faire* rendered legislative materials after the beginning of the nineteenth century of relatively less significance. Published collections of statutes, more or less complete, are available for all the Southern Colonies. Maryland, North Carolina, and Georgia have published voluminous collections of colonial records, containing not only statutes but also the records of legislative sessions, and correspondence of governors and other officials. Through the labors of Alexander Salley a good deal of material on legislative proceedings in South Carolina has been published for the years preceding 1700, together with *Commissions and Instructions for the Lords Proprietors, 1685-1715*. For the early period the *Shaftesbury Papers*, published in the *Collections* of the South Carolina Historical Society, are invaluable. Unfortunately most of the official records for that important Colony are to be had only in manuscript form at the State capital. Published official materials for Virginia are more comprehensive, including the *Journals of the House of Burgesses* from 1619 to 1776 and McIlwaine's *Journals of the Council*, beginning in 1680. Official correspondence of various governors has been published in the *Collections* of the Virginia Historical Society, in the *Virginia Magazine of History and Biography*, and in other historical periodicals. Such letters are frequently agricultural sources of great value. Mrs. Connor's *Colonial Records of Spanish Florida* and *Pedro Menéndez de Avilés* reveal the paucity of agriculture during the early years of that Colony, but neither for Florida nor for Louisiana has there been published a comprehensive collection of official sources for the colonial period, though scraps of official material may be found in various publications.

Official colonial source materials are largely supplemented by official records of the mother countries, England and France, which are available in published or manuscript form in this country. In addition to the published collections already mentioned, reference should be made to Stock's amply annotated *Proceedings and Debates of the British Parliaments Respecting America*, Stevens' *Facsimiles of Manuscripts in European*

*Archives Relating to America*, the various editions of the *British Statutes at Large*, Brigham's *Royal Proclamations Relating to America*, the *Acts of the Privy Council*, *Colonial Series*, the *Journal of the Commissioners for Trade and Plantations*, Kingsbury's *Records of the Virginia Company of London*, Brown's *Genesis*, the *John Smyth of Nibley Papers*, and various other published records, besides the extensive collection of British and French colonial transcripts in the Library of Congress.

Among the various official records and reports of the United States Government particularly significant are the *Annual Reports of the Commissioner of Patents*, especially the series on agriculture, 1849-1862, and the *Annual Reports of the Commissioner of Agriculture*. In addition to various official statistical sources already mentioned, a number of special Congressional or departmental reports on sugar, tobacco, and other phases of Southern agriculture are full of valuable information. The *American State Papers*, especially the series on *Commerce and Navigation* and *Public Lands*, and the *Annual Reports on Commerce and Navigation*, are important sources.

There are many published collections of historical material relating to the South, including not only collections of national or section-wide scope, such as the *Proceedings* of the American Historical Association, the *American Historical Review*, the *Publications* of the Southern History Association, the *Mississippi Valley Historical Review*, *Agricultural History*, etc., but also numerous historical collections or periodicals for particular Southern States. Every Southern State has or has had a historical society which has been active in publishing historical reviews or collections of papers, and in some of the States colleges, universities, and other institutions have published historical collections or reviews. In the aggregate these collections contain material of great value for agricultural history but of miscellaneous character and quality, including monographs, short treatises, journals of travellers, diaries, collections of letters, reminiscences, and hitherto unpublished official material.

There are also many general collections of pamphlets, mostly consisting of journals of travellers or descriptive accounts by persons temporarily residing in the South, including the well-known Peter Force's *Tracts*; Carroll's *Collections* and Weston's *Documents*, both relating to South Carolina; French's *Collections of Louisiana*; Hakluyt's *Early Voyages* and the *Works Issued by the Hakluyt Society*; the *Narratives* of early South Carolina, Maryland, and Virginia, edited respectively by Salley, Mereness, and L. G. Tyler; Mereness' *Travels in the American Colonies*, Thwaites' *Early Western Travels* and his *Jesuit Relations*, and Williams' *Early Travels in Tennessee*. U. B. Phillips' valuable collection entitled *Plantation and Frontier* is of a more miscellaneous character.

In addition to these collections, many works of travel published individually have also been used in the preparation of this treatise. Because of their descriptive character such works are obviously of greater importance for economic history than for political history; nevertheless, they vary materially in accuracy and in general value, and must be used with discrimination. Of special significance for agricultural history are the journals of botanists such as Clayton, Bartram, Eddis, and Michaux, and of agriculturists such as Parkinson, Strickland, Edmund Ruffin, and Solon Robinson, who were endowed with a discriminating capacity for agricultural observations. Many descriptive works are frankly or obviously designed to attract immigrants, such as *A Relation of Maryland*, Stork's anonymous *Account of East Florida*, and *Informations Concerning the Province of North Carolina*, published under the pseudonym "Scotus Americanus," and deliberately paint a bright picture. Others like Ash's *Carolina* or Archdale's *Description of Carolina* were written with the obvious aim of creating in the mother country a favorable impression of the new lands. Still others, such as "immigrants' guides" and gazetteers were designed to provide helpful information, usually presented in a fairly favorable light. These various classes of laudatory description are not without historical usefulness if employed with sufficient care. A large number of works of travel consist merely of daily entries in diaries or journals, such as the several journals of Herman and Waldron, Thomas Walker, William Fleming, William Calk, the descrip-

tive material in the collection of letters from German settlers in Missouri published in Bek's *Followers of Duden*, the *Diary of John Harrower*, and Fithian's *Journal and Letters*. Such works possess usually a higher degree of dependability than more impressionistic accounts of travel deliberately embellished with literary flavor, but frequently routine entries of distance travelled and other details of little significance. Some of the more highly impressionistic works of travel, such as those of Olmsted and Robert Russell, reflect unusual powers for observing and recording significant details. Many works of travel present difficulty to the historian in determining the location of the various descriptive accounts.

The numerous available works of reminiscence possess most of the limitations of works of travel, with the additional limitations resulting from "memory bias," but some of these works, such as Britton's *Pioneer Life in Southwest Missouri*, contain an unusual wealth of descriptive detail concerning agricultural conditions.

Diaries and letters, both manuscript and printed, comprise a large volume of source material. Especially valuable are the diaries, journals, accounts, and correspondence of planters and merchants, constituting a record of their business transactions. Such material has a large degree of reliability. Its greatest limitation for the historian is the difficulty of determining its representativeness and the scope of its applicability. Among business records and correspondence of planters or planter-merchants which have been found to contain much pay dirt are those of the two William Byrds, William Fitzhugh, Robert and Landon Carter, George Washington, Thomas Jefferson, Edmund Ruffin, Theodorick Bland, James Habersham, Joseph Clay, Henry Laurens, the Jones Family, William Lee, M. B. Philips, various published collections of the correspondence of important merchants including William Allason, Roger Atkinson, Richard Chapman, Francis Jerdone, Thomas Jett, William Nelson, and the manuscript collections, the *Jamieson Papers* and the *Ellis and Allan Papers*. Various collections of official correspondence not already mentioned containing significant material are the *Calvert Papers*; the manuscript *Diary and Official Letter Book* of Robert Morris; the correspondence of Richard Henry Lee, Governor Thomas Nelson, James Madison, and Governor Wright; Burnett's *Letters of Members of the Continental Congress*; and the *Executive Journal and Official Letter Books* of Governor William C. C. Claiborne.

The immense number of controversial pamphlets and other works dealing with the subject of slavery, including the works of travel written by persons who came to the South to confirm preconceived ideas concerning the iniquities and inefficiencies of the slavery régime, are of greater value for the student of opinion than for the economic historian, except in those instances where preconceptions were admittedly controverted by the observed facts. A large number of controversial pamphlets on other subjects may, if employed with discretion, yield considerable significant material; for instance, *The Case of the Planters of Tobacco*, Darnall's *Just and Impartial Account*, John Bland's *Humble Remonstrance*, Gatford's anonymous *Publick Good without Private Interest*, and the *Memorial of the Merchants and Planters of Louisiana*.

The works mentioned in this discussion are merely illustrative of the most important types of sources and secondary materials used, and many others of nearly or quite equal value are included in the list that follows.

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- SOIL OF THE SOUTH (6 vols., Columbus, Ga., Jan., 1851–Dec., 1856). Title varies. Merged into *American Cotton Planter*, Jan., 1857.
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- SOUTHERN AGRICULTURIST, HORTICULTURIST, AND REGISTER OF RURAL AFFAIRS (Charleston, S. C., vols. 1–12, 1828–1839; 1840; new series, vols. 1–6, 1841–1846). Title varies: 1840 entitled *Southern Cabinet of Agriculture . . .*, and not numbered in the series.
- SOUTHERN CABINET OF AGRICULTURE, HORTICULTURE, RURAL AND DOMESTIC ECONOMY. *See Southern Agriculturist* (Charleston).
- SOUTHERN CULTIVATOR AND DIXIE FARMER (vols. 1– , Augusta, Athens, & Atlanta, Ga., 1843– ). Title varies.
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- SOUTHERN SILK JOURNAL AND FARMERS' REGISTER (1 vol., Nos. 1–2. Columbus, Ga., No. 1, Aug., 1839; No. 2 not dated).
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- THE VALLEY FARMER (16 vols., St. Louis, Mo., 1849–1854, 1860–1864; St. Louis, Mo., & Louisville, Ky., 1855–1859). Succeeded in Jan., 1865 by *Colman's Rural World*.
- THE VALLEY FARMER (27 vols., Winchester, Va., Aug., 1844–1846?).
- WESTERN FARM JOURNAL (2 vols. in 1, Louisville, Ky., July 5, 1856–Aug. 17, 1857).
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NEWSPAPERS<sup>1</sup>

## ALABAMA

## CAHAWBA:

*Cahawba Press and Alabama State Intelligencer*. w. Dec. 20, 1820–July 26, 1826.

## FLORENCE:

*Florence Gazette*. w. May 19, 1849–May 24, 1851.

## GREENSBOROUGH:

*The Halcyon*. w. Apr. 24–Dec. 20, 1823. *See also* St. Stephens.

## HUNTSVILLE:

*Alabama Republican*. w. Jan. 5, 1819–Apr. 22, 1825.

*The Democrat*. w. est. 1823. July 31–Dec. 4, 1829.

*Southern Advocate*. w., s-w. May 6, 1825–Dec. 24, 1828; Feb. 25, 1835–Mar. 7, 1837; Apr. 6, 1849–Dec. 29, 1852.

## MOBILE:

*The Mobile Argus*. s-w., w. est. Nov. 28, 1822. Dec. 5, 1822–Nov. 6, 1823.

*Mobile Commercial Register*. s-w., w. est. Dec. 10, 1821. 1824, 1825, 1828, 1829, odd Nos.: Jan. 6–Dec. 19, 1826. t-w., Jan. 2–Dec. 28, 1830.

<sup>1</sup> In this bibliography no attempt has been made to give a history of the newspapers included. Information regarding date of establishment, changes of title, and names of publishers, etc. (taken from the new check list being prepared for publication by the Periodical Division of the Library of Congress) has been included when considered helpful in identifying the papers cited. The term *publisher* is here used in a very general sense, as at times it may mean editor or printer. The inclusive dates given are extremes showing the general period searched for material in those particular papers, but in many cases the files were incomplete, and consequently many issues within those dates may not have been available. While the majority of the newspapers used are in the files of the Library of Congress, other libraries and individuals have kindly furnished excerpts or photostats of special articles, these newspapers also being included in the present bibliography. See also the sources given for table 49, p. 1038.

*Mobile Daily Commercial Register and Patriot.* Jan. 1, 1833–Nov. 15, 1841. Title varies. Consolidated with *Merchants' and Planters' Journal*, Dec. 1, 1841, and called *Mobile Register and Journal*.

*Mobile Gazette and Commercial Advertiser.* w. Jan.–July, 1820. Continued as *Mobile Gazette and General Advertiser*, Aug., 1820–Feb., 1821; odd Nos.

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## MONTGOMERY:

*Alabama Journal.* w. Dec. 9, 1825–July 7, 1826.

## ST. STEPHENS:

*The Halcyon and Tombeckbee Public Advertiser.* w. Jan. 9, 1819–Nov. 2, 1822. See also Greensborough.

## DISTRICT OF COLUMBIA

## GEORGETOWN:

*Washington Federalist.* d., t-w. Oct. 30, 1800–Sept. 8, 1804.

## WASHINGTON:

*The Washington Gazette.* s-w., w. June 15, 1796–Mar. 24, 1798.

## GEORGIA

## AUGUSTA:

*The Augusta Chronicle and Gazette of the State.* w. April 11, 1789–July 14, 1792; Mar. 21–Dec. 19, 1795. Continuation of the paper named below.

*The Georgia State Gazette, or Independent Register.* w. est. Sept. 30, 1786. Oct. 24, 1786–Apr. 4, 1789.

## SAVANNAH:

*Columbian Museum and Savannah Advertiser.* s-w. est. Mar. 4, 1796. Mar. 4, 1796–Feb. 28, 1797.

*The Georgia Gazette.* w. est. Apr. 7, 1763. Apr. 7, 1763–Nov. 21, 1765 (Photostat copies). Discontinued until May 21, 1766. May 21, 1766–May 23, 1770 (Photostat copies); July 27, 1774–Sept. 20, 1775, odd Nos. Discontinued in 1776. Revived Feb. 6, 1783 as *Gazette of the State of Georgia.* Feb. 27, 1783–Sept. 13, 1787, odd Nos. Continued as the *Georgia Gazette*, Oct. 23, 1788. Jan. 7, 1790–Dec. 29, 1791; 1792–1794, 1799, odd Nos.

## KENTUCKY

## FRANKFORT:

*Argus of Western America.* w. Jan. 1, 1819–Dec. 22, 1830. Continued as *The Frankfort Argus.* Jan. 5, 1831–Apr. 27, 1838. Title varies.

*The Guardian of Freedom.* w. est. May 8, 1798. May 8, 1798–Feb. 28, 1799.

## LEXINGTON:

*The Kentucky Gazette.* w., s-w. est. Aug. 11, 1787. Title varies. Aug. 18, 1787–Dec. 29, 1800, partly photostats; Jan. 1, 1819–Nov. 27, 1841.

## LOUISVILLE:

*Louisville Public Advertiser.* s-w., d. Jan. 19, 1820–May 14, 1841.

## RUSSELLVILLE:

*The Weekly Messenger.* Jan. 26–May 29, 1819; Jan. 11–Dec. 5, 1820; Jan. 19, 1822–Dec. 23, 1826.

## LOUISIANA

## ALEXANDRIA:

*Louisiana Herald.* w. Jan. 21, 1820–Aug. 31, 1825.

## BATON ROUGE:

*Baton Rouge Gazette.* w. July 17, Aug. 14, 1824; Feb. 18, 1826–Dec. 17, 1827.

*The Republic.* w. Apr. 2, 1822–Aug. 30, 1823.

## NATCHITOCHES:

*Natchitoches Courier.* w. English or French edit. Feb. 14, 1825–Nov. 5, 1827.

## NEW ORLEANS:

*The Daily Picayune.* est. 1837. Aug. 2, 1845–Feb. 15, 1861.

*The Daily True Delta.* Nov. 18, 1857–May 17, 1862.

*Louisiana Advertiser.* d. Apr. 25–May 1, 1822; 1824, 1828, 1831, 1836, 1840, 1841, odd Nos.



*The Louisiana Courier.* d. English and French edit. Oct. 7-18, 1824; July 11-Oct. 24, 1825; July 3-Nov. 29, 1827; Jan. 3, 1830-Dec. 31, 1838; Jan. 6, 1840-Dec. 31, 1849; Mar. 8, 1853-Dec. 31, 1858; 1839, 1852, 1859, odd Nos.

*Louisiana Courier.* w. Feb. 20, 1811; Sept. 19, 1814.

*The Semi-Weekly Courier.* English and French edit. Feb. 7, 1857-Feb. 5, 1859.

*Louisiana Courier.* t-w. Feb. 1, 1819-Nov. 28, 1827; Mar. 3, 1829-Dec. 31, 1831; 1836, 1839, odd Nos.

*The Courier.* d. English and French edit. Jan. 1-Nov. 24, 1860.

All cited as *Louisiana Courier*.

*Louisiana Gazette.* d. Apr. 25, 1822-Sept. 9, 1824, odd Nos.

*The Louisianian and Journal of Commerce.* d. Jan. 14-Mar. 2, 1839.

*Mercantile Daily Advertiser.* Mar. 10, 1825-Dec. 30, 1826, odd Nos.

*The New Orleans Argus.* d., t-w. Jan. 18-Dec. 19, 1828; Nov. 14, 1829. Succeeded by the *New Orleans Bee*.

*The New Orleans Bee.* d. English or French edit. Apr. 22-Dec. 26, 1841; 1843, odd Nos.; Mar. 28, 1849-Dec. 30, 1851.

*New Orleans Commercial Bulletin.*

I-d. June 1-Nov. 30, 1833; Oct. 13, 1835; Sept. 30, 1836; May 7, Aug. 1, 1839-Dec. 31, 1842; July 1-Dec. 31, 1844; Jan. 1, 1846-Dec. 31, 1860.

II-w. Mar. 6-Sept. 25, 1841. Continued as *New Orleans Weekly Bulletin*. Oct. 2, 1841-Dec. 21, 1844; Oct. 9, 1847; Oct. 13, 1849. Continued as *New Orleans Weekly Commercial Bulletin* [also *Semi-Weekly*]. 1855-1857, 1859, odd Nos. Bound with the daily.

All cited as *New Orleans Commercial Bulletin*.

*New Orleans Daily Crescent.* Dec. 28, 1860; Jan. 19, Feb. 2, 25, July 30, 1861.

*New Orleans Price Current.*

*New Orleans Price Current and Commercial Intelligencer.* w. Sept. 13, 1823-July 11, 1829; July 23, 1831-July 22, 1837; July 27, 1839-July 31, 1841; Sept. 1, Nov. 6, 1847; Mar. 4-June 9, 1849; Sept. 1, 1851-Aug. 5, 1854; Sept. 1, 1855-Aug. 23, 1856.

*New Orleans Price Current, Commercial Intelligencer and Shipping List.* s-w. Sept. 1, Aug. 27, 1859.

*New Orleans Price Current, Commercial Intelligencer, and Merchants' Transcript.* s-w., w. 18-56 Sept. 1, 1860.

All cited as *New Orleans Price Current*.

*New Orleans Weekly Delta.* May 29, 1848-Oct. 1, 1849.

*Orleans Gazette and Commercial Advertiser.* d. Apr. 20-Oct. 29, 1807; Jan. 5, 1816; Feb. 23, 1819-June 15, 1820; Apr. 25-May 1, 1822.

*The Weekly Picayune.* June 20, 1842-Apr. 24, 1843; Sept. 21, 1860; Aug. 10, 1861.

#### PLAQUEMINE:

*Planters' Gazette.* w. Apr. 12-Oct. 25, 1845.

#### PROVIDENCE:

*Carroll Watchman.* w. Feb. 8-Dec. 30, 1845.

#### ST. FRANCISVILLE:

*The Asylum.* w. Nov. 8, 1821-July 30, 1825. Title varies; Nov. 8, 1821-Mar. 20, 1822, the *Asylum and Feliciana Advertiser*.

*The Louisiana Journal.* w. Mar. 24, 1825-Dec. 9, 1826; June 21, 1828.

#### MARYLAND

##### ANNAPOLIS:

*The Maryland Gazette.* w. est. Sept. 19 (?), 1727. William Parks or William Parks and Edmund Hall, pubs. Publication suspended Mar. (?), 1731-Dec., 1732. Dec. 10, 1728-Nov. 29, 1734, photostats of 59 odd Nos.

*The Maryland Gazette.* w. est. Jan. 17, 1745. Jonas Green, Jonas Green and William Rind, or various members of the Green family, pubs. 1746, 1747, 1752-1755, 1761, 1763-1769, 1771, 1773, 1774, 1777, 1784, 1786-1788, 1790-1792, 1795-1798, 1800, some years nearly complete, others only odd Nos.

##### BALTIMORE:

*Baltimore Daily Intelligencer.* est. Oct. 28, 1793. Oct. 29, 1793-Oct. 29, 1794. Continued as the *Federal Intelligencer and Baltimore Daily Gazette*.

- Baltimore Daily Repository.* est. Oct. 24, 1791. Oct. 2, 1791–Oct. 19, 1793. Succeeded by the *Baltimore Daily Intelligencer.*
- Federal Gazette and Baltimore Daily Advertiser.* Continuation of the *Federal Intelligencer and Baltimore Daily Advertiser.* Jan. 2, 1796–Feb. 17, 1800.
- The Maryland Gazette; or, the Baltimore General Advertiser.* w., s-w. est. May 16, 1783. June 27, 1783–May 13, 1785. Continued as *The Maryland Gazette; or, the Baltimore Advertiser.* 1786–1788, odd Nos.; Jan. 2–Dec. 18, 1789; 1790, odd Nos.
- The Maryland Journal.* w., s-w., t-w., d. est. Aug. 20, 1773.
- The Maryland Journal and the Baltimore Advertiser.* 1773–1785, odd Nos.; Jan. 24, 1786–Nov. 25, 1794.
- Maryland Journal and Baltimore Universal Daily Advertiser.* 1795, odd Nos.
- Maryland Journal & Baltimore Advertiser.* 1796, odd Nos.

## NEW YORK

## NEW YORK:

- New York Shipping and Commercial List.* s-w., d. Mar. 14, 1815–Dec. 30, 1829. Publication continued. Title varies.

## NORTH CAROLINA

## EDENTON:

- The State Gazette of North Carolina.* w. Abraham Hodge and Henry Wills, and James Wills, pubs. Sept. 8, 1788–July 23, 1790; July 30–Dec. 31, 1790; Jan. 7–Nov. 11, 1791; 1792–1795, odd Nos.; Jan. 14, 1796–Dec. 21, 1797; 1798, 1799, odd Nos. Principally photostats, beginning July 20, 1790. Continued as *The Herald of Freedom.*

## FAYETTEVILLE:

- Fayetteville Gazette.* w. est. Aug. 24, 1789. 1789, odd Nos.; photostats. Continued under title below.
- The North Carolina Chronicle; or, Fayetteville Gazette.* w. Sept. 13, 1790–Mar. 7, 1791, photostats.
- The North Carolina Minerva and Fayetteville Advertiser.* w. est. Mar. 24, 1796. Mar. 31, 1796–Nov. 18, 1797; 1798, 1799, odd Nos.; photostats.

## HALIFAX:

- The North-Carolina Journal.* w. est. July 18 (?) 1792. Abraham Hodge and Henry Wills, pubs. Aug. 1, 1792–May 20, 1799; May 12, 1800. Originals and photostats.

## NEWBERN:

- The North Carolina Gazette.* w. est. 1751 (?). James Davis, pub. 1751–1753, 1757, 1759, odd Nos.; photostats.
- The North-Carolina Gazette.* w. est. May 27 (?), 1768. James Davis, pub. 1768, 1769, 1774, 1775, 1777, 1778, odd Nos.; photostats.
- North-Carolina Gazette.* w. Continuation of *Martin's North Carolina Gazette*, beginning between Dec., 1787 and Apr., 1790. 1790, 1791, 1793–1797, odd Nos.; photostats.

## WILMINGTON:

- Hall's Wilmington Gazette.* w. est. Jan. 5, 1797. Feb. 9–Nov. 3, 1797; Feb. 8–Nov. 29, 1798; photostats. Continued as *The Wilmington Gazette.*
- The Wilmington Centinel and General Advertiser.* w. est. Mar. 5 (?), 1788. June 18, 1788; photostat.
- The Wilmington Chronicle; and North-Carolina Weekly Advertiser.* est. July 3, 1795. 1795, 1796, odd Nos.; photostats.
- The Wilmington Gazette.* w. 1799, odd Nos.; photostats.

## SOUTH CAROLINA

## CHARLESTON:

- The Carolina Gazette.* w. Feb. 4–Nov. 11, 1802; Nov. 24, 1803; Jan. 6–Dec. 28, 1816.
- The Charleston Courier.* d. est. Jan. 10, 1803. Title varies. Jan. 10, 1803–June 28, 1832. Publication continued.
- City Gazette and Daily Advertiser.* Title varies. 1788–1791, 1793–1795, odd Nos.; Jan. 1–Dec. 24, 1796; 1797–1802, odd Nos. "Publication continued with changes in title until 1832 or later"

*The Gazette of the State of South Carolina.* w., s-w. est. Apr. 9, 1777. Revival of *The South-Carolina Gazette*. Publication suspended Jan. 15-June 17, 1778, and from Feb. 9, 1780 to July 16, 1783. Sept. 15, 1779; July 16, 1783-Dec. 30, 1784. Continued as *The State Gazette of South-Carolina*.

*The Royal Gazette.* s-w. est. Mar. 3, 1781. Mar. 3, 1781-Aug. 7, 1782.

*The South Carolina Gazette.* w. est. Jan. 8, 1832. Apr. 26-May 3, 1760. Publication suspended for various periods. Continued Apr. 9, 1777 as *The Gazette of the State of South-Carolina*.

*South Carolina Gazette, and General Advertiser.* s-w., t-w. est. Mar. 15, 1783. Mar. 15, 1783-Aug. 24, 1784. Title varies.

*The State Gazette of South Carolina.* s-w., t-w. est. Mar. 28, 1785. Jan. 2-Oct. 30, Dec. 23, 1786; 1788, 1789, odd Nos. Continued as *South-Carolina State-Gazette & Timothy & Mason's Daily Advertiser*, Jan 1, 1794.

## TENNESSEE

## NASHVILLE:

*The Nashville Daily Union.* Dec. 8, 1847-Mar. 20, 1848; July 18-Aug. 14, 1849.

*Nashville Whig.* w. est. Aug. 26, 1812. Sept. 2, 1812-July 15, 1815; Jan. 2, 1819-Apr. 22, 1826.

*Nashville Whig.* t-w. est. Jan. 6, 1838. Jan. 6, 1838-Nov. 3, 1841; Apr. 12, 1845-Mar. 4, 1848.

*The Review.* [Excerpts loaned through the courtesy of Mr. George R. Taylor of Amherst College.]

## VIRGINIA

## ALEXANDRIA:

*The Columbian Mirror and Alexandria Gazette.* s-w., t-w. est. Nov. 21, 1792. Nov. 28, 1792-Nov. 13, 1793; 1795, 1797, 1798, 1800, odd Nos.

*The Times, Alexandria Advertiser.* d. est. Apr. 10, 1797. May 20, July 31, 1797-Dec. 31, 1798. Title changed to *The Times; and District of Columbia Daily Advertiser.* 1799, 1800, odd Nos.

## FREDERICKSBURG:

*The Virginia Herald.* w., s-w. est. June 7, 1787. Title varies.

*The Virginia Herald and Fredericksburg Advertiser.* w. May 27, 1788; Jan. 7, 1790-Dec. 29, 1791; Jan. 10, 1793.

*The Virginia Herald, & Fredericksburg & Falmouth Advertiser.* s-w. Jan. 22, 1796.

*The Virginia Herald.* s-w. Nov. 2, 1798; Jan. 11-Dec. 10, 1799; Jan. 21-Oct. 24, 1800; Jan. 23, 1802-Dec. 21, 1804; Jan. 6, 1807-Dec. 15, 1813; July 1, 1815-Dec. 30, 1820; Jan. 1, 1823-Dec. 31, 1836.

## NORFOLK:

*Epitome of the Times.* s-w. est. Mar. 22, 1798. 1799, 1800, odd Nos.

*The Virginia Chronicle and Norfolk and Portsmouth General Advertiser.* w., s-w. Aug. 18, 1792-Dec. 19, 1794. Title varies.

*Virginia Gazette or, Norfolk Intelligencer.* w. est. June 9 (?), 1774. 1774, 1775, odd Nos.; 2 photostats.

## RICHMOND:

*The Richmond Dispatch.* d. est. 1850. See John Joyce.

*The Richmond and Manchester Advertiser.* w. Continuation of *The Virginia Gazette and Richmond and Manchester Advertiser.* Apr. 30, 1795-Nov. 15, 1796. Continued as *Virginia Argus*.

*The Virginia Gazette, and General Advertiser.* w., s-w. Continuation of *The Virginia Independent Chronicle, and General Advertiser.* Aug. 25-Dec. 1, 1790; 1791, 1793, 1794, 1796, 1798, 1799, odd Nos.

*The Virginia Independent Chronicle.* w. est. July 26, 1786. Title changed May 13, 1789 to *The Virginia Independent Chronicle and General Advertiser.* Mar. 28, 1787-Aug. 18, 1790.

## WILLIAMSBURG:

*The Virginia Gazette.* w. est. Aug. 6, 1736. William Parks, pub. Sept. 10, 1736-Feb. 1, 1740; May. 21-Dec. 19, 1745; Jan. 9-Sept. 25, 1846; photostats.

*The Virginia Gazette.* w. est. Jan. 3 (?), 1751. Published at various periods by William Hunter, J. Royles, Alex. Purdie, and John Dixon, individually or in partnership. Feb. 28, 1751-Dec. 22, 1752; 1753-1757, 1759, 1761, 1762, 1765, odd Nos.; Mar. 7, 1766-Dec. 28, 1769; 1770, 1771, 1774, odd Nos.; Jan. 7, 1775-Sept. 12, 1777; 1778, odd Nos. 1751-1769, principally photostats.

*The Virginia Gazette.* w., s.w. est. May 16, 1766 as *Rind's Virginia Gazette*, title being changed sometime between Sept. 12, 1766 and Feb. 19, 1767. Publishers at various times, William Rind, Clementina Rind, and John Pinckney. 1766-1773, odd Nos.; Jan. 13, 1774-Jan. 20, 1776.

*The Virginia Gazette.* w. est. Feb. 3, 1775. Publishers at various times, Alexander Purdie, John Clarkson & Augustine Davis. Feb. 3, 1775-Dec. 12, 1777; 1778-1780, odd Nos.

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1734, Sept. 2. Versailles. Minister to Bienville and Salmon. Trade with Spaniards at Pensacola, Balize, . . . ; tobacco; Jesuit indigo; pitch and tar; procuring of Negroes; peltries; silk industry; hemp and flax seed; Beaubois' cotton-gin; Fayet's trade with French Islands. — AC, B61, f. 650.

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3338. From Vol. lettered "Petiver Adversaria." ff. 33-36, Letter from Mary Stafford, Aug. 23, 1711, describing their life in South Carolina.
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- 540-547. East Florida, 1702-1783. Papers, letters, etc. from the Governors, James Grant to Patrick Tonyn, etc.
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## APPENDIX

Statistical Tables and Notes





TABLE 36.—*Naval stores and timber products exported from the Southern Colonies in the year 1768–69 to Great Britain, Ireland, southern Europe, the West Indies, and coastwise*<sup>1</sup>

Destination and source	Naval stores			Timber products			
	Pitch	Tar	Turpen- tine	Shingles	Staves, etc.	Boards and planks	Hoops
	<i>bbls.</i>	<i>bbls.</i>	<i>bbls.</i>	<i>no.</i>	<i>no.</i>	<i>ft.</i>	<i>no.</i>
<b>A. To Great Britain.</b>							
Maryland.....	6		31		832,183	48,472	4,428
Virginia.....	7,910	14,978	441	6,500	1,396,979	119,138	11,430
N. Carolina.....	3,808	57,058	9,863	3,000	435,805	206,405	200
S. Carolina.....	7,240	1,972	4,403		97,304	3,950	
Georgia.....	441	123	107		48,220	21,631	
West Florida.....	250						
	<i>hhd.</i> 38				558		
<b>B. To Ireland.</b>							
Maryland.....					207,896	102,546	
Virginia.....					104,000	3,800	
N. Carolina.....					157,000	36,000	
<b>C. To Southern Europe.</b>							
Maryland.....		1		6,000	558,602	74,391	
Virginia.....				22,500	255,068	42,501	
N. Carolina.....	782	113	223		465,600		
S. Carolina.....							
Georgia.....					38,560	2,000	
<b>D. To the British and Foreign West Indies.</b>							
Maryland.....		17	20	404,390	540,568	222,866	93,473
Virginia.....	210	267		6,660,125	1,333,047	487,095	102,375
N. Carolina.....	381	1,159	917	4,964,590	1,072,350	2,927,103	41,790
S. Carolina.....	724	595	122	2,511,922	250,986	778,378	14,090
Georgia.....	50	39	8	3,029,535	450,119	1,649,676	6,000
	Pitch, tar, and turpentine, combined						
<b>E. Coastwise.</b>							
Maryland.....				20,300	119,845	52,002	
Virginia.....		298		17,700	16,500	214,729	
N. Carolina.....		53,475		1,041,947	683,212	6,900	
S. Carolina.....		3,771		59,400	22,562	71,288	
Georgia.....		10		601,750	249,150	114,000	
E. and W. Florida.....		12				2,000	

<sup>1</sup> British Museum, *Additional Manuscripts*, 15485, pp. 1–13, 18–21 (Transcripts, Library of Congress). A number of very minor items have been omitted from the table.

## STATISTICS OF RICE EXPORTS

Several attempts at compiling annual statistics of rice exports for South Carolina during the colonial period have been made. The first and most significant of these lists was included in the article on "Rice" in De Bow's *Industrial Resources of the Southern and Western States* (II, 408-409). For the years 1724-1735 inclusive the figures appear to have been taken from Butel-Dumont's *Histoire et Commerce des Colonies Angloises dans l'Amérique Septentrionale*, or at least from a common source. They have the earmarks of being official in origin. The remaining statistics for the colonial period were apparently compiled from shipping lists published in the *South Carolina Gazette*. These statistics were subsequently published in the *Charleston Yearbook*, 1880.

Annual statistics of exports in pounds from 1712 to 1773 inclusive, with the exception of eight years of the period,<sup>1</sup> were compiled some years ago and published by the United States Department of Agriculture.<sup>2</sup> That table is based largely on Butel-Dumont and the *Charleston Yearbook* article except for scattering years. In 1892 a handbook on the *Greatest of Grains, Rice*, was published by Dan Talmage's Sons. It contains a table giving the total production by ten-year periods in pounds. The sources are not given, but apparently it was compiled from one or more of the sources mentioned.

In addition to the above tables the present writer has had access to sources not available when the tables were compiled, and it has been thought best to compile a new table. Furthermore, in the Department of Agriculture publication mentioned, statistics originally given in barrels were reduced to pounds by employing the following equivalents: For 1717, 350 pounds per barrel; for 1719-1729, 400 pounds; for 1730-1788, 500 pounds. The equivalents employed, however, are in conflict with various contemporary statements. A report by Governor Johnson in 1719 stated the average barrel contained about 350 pounds net.<sup>3</sup> The figure of 400 pounds for 1719-1721 is that given by Francis Yonge,<sup>4</sup> who, as collector for the port of Charleston, probably spoke with authority. In a report made by a special committee of the Savannah Rice Association it was stated that the size of the trade barrel at Charleston from 1720 to 1729 inclusive was 325 pounds. For 1728 and 1729, however, it is given as 400 pounds.<sup>5</sup> In a contemporary report written at Charleston in 1731 the size of the barrel is given as 500 pounds.<sup>6</sup> In his account of South Carolina, probably written in 1749, Governor Glen asserted that the rice barrel contained 500 pounds net.<sup>7</sup> In another document, written in 1763, it is stated that the barrel contained from 500 to 600 pounds.<sup>8</sup> McCrady asserts that the rice barrel in 1768-69 contained "something over 600 pounds," but he quoted De Brahm's report of 1773, covering the years 1764-1772, to the effect that two barrels of rice "contains 1100 wight."<sup>9</sup> In 1772 James Habersham figured the barrel at 540 pounds net.<sup>10</sup>

On account of the discrepancies between the figures mentioned and the equivalents employed in preparing the above mentioned table of exports, it appears best to use the barrel or other unit as originally given. However, the statistics in pounds as compiled by Holmes are included in Table 42.

<sup>1</sup> Namely, 1720, 1722-1723, 1755-1757, 1765-1766.

<sup>2</sup> Holmes, G. K., *Rice Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, Circular 34), pp. 1-11.

<sup>3</sup> Rivers, *Chapter in the Early History of South Carolina*, 99.

<sup>4</sup> *View of the Trade of South Carolina*, 10.

<sup>5</sup> Savannah Rice Association, *Report on American Rice Industry*, 4-6.

<sup>6</sup> Purry, *Description of South Carolina* (Carroll, Hist. Collections, II), 129.

<sup>7</sup> *Answers to Queries* (Weston, Documents), 70.

<sup>8</sup> Milligen, *Description of South Carolina* (Carroll, Hist. Collections, II), 481.

<sup>9</sup> *South Carolina under the Royal Government*, 389, 394.

<sup>10</sup> *Letters* (Ga. Hist. Soc., Collections, VI), 216.

TABLE 37.—*Rice exported from Charleston and Savannah, 1699–1700 to 1800–01*<sup>1</sup>

Period	Unit	Charleston	Savannah	Total
1699–1700 <sup>2</sup> .....	tons	330	.....	.....
1712–1713 (June–Dec.) <sup>3</sup> .....	{bbls.	12,677	.....	.....
	{bags	200	.....	.....
1715, “annually” <sup>4</sup> .....	tons	2,000	.....	.....
1718–1719 (Jan.–Jan.) <sup>5</sup> .....	bbls.	9,106	.....	.....
1719–1720 ( “ “ ) <sup>6</sup> .....	“	9,115	.....	.....
1721 <sup>7</sup> .....	“	21,879	.....	.....
1724–1725 (Nov.–Nov.) <sup>8</sup> .....	casks	17,734	.....	.....
1725–1726 ( “ “ ) <sup>9</sup> .....	“	23,031	.....	.....
1726–1727 ( “ “ ).....	“	26,884	.....	.....
1727–1728 ( “ “ ).....	“	29,905	.....	.....
1828–1729 ( “ “ ).....	bbls.	32,384	.....	.....
1729–1730 ( “ “ ).....	“	41,722	.....	.....
1730–1731 ( “ “ ).....	“	39,487	.....	.....
1731–1732 ( “ “ ).....	“	37,068	.....	.....
1732–1733 ( “ “ ).....	“	50,726	.....	.....
1733–1734 ( “ “ ).....	“	30,323	.....	.....
1734–1735 ( “ “ ).....	{bbls.	45,317	.....	.....
	{bags	1,038	.....	.....
1735–1736 ( “ “ ) <sup>10</sup> .....	{bbls.	52,349	.....	.....
	{bags	1,554	.....	.....

<sup>1</sup> The source of the data for Savannah is Romans, *East and West Florida*, 104, insert, computed from customhouse records. The variations of the fiscal year given here apply only to Charleston, the terminal dates for Savannah being January 5 in all years. The sources for Charleston are given in the succeeding notes.

<sup>2</sup> E. Randolph to Board of Trade, May 27, 1700. (S. C. Hist. Soc., *Collections*, I, 214.)

<sup>3</sup> Chalmers, Manuscript notes. (Rivers, *Sketch of South Carolina*, 251 n.)

<sup>4</sup> Great Britain, *Journal of the Commissioners for Trade and Plantations*, 1714–1718, p. 56.

<sup>5</sup> Rivers, *Chapter in the Early History of South Carolina*, 109. Governor Johnson on Jan. 12, 1719, reported 14,000 barrels exported annually. (*Ibid.*, 99.) Yonge reports 13,623 barrels exported in 1719. (*View of the Trade of South Carolina*, 10.)

<sup>6</sup> Rivers, *Chapter in the Early History of South Carolina*, 21.

<sup>7</sup> Yonge, *View of the Trade of South Carolina*, 10. Rivers reports 16,212 barrels exported from Jan. 1 to May 2, 1721. (*Chapter in the Early History of South Carolina*, 56.)

<sup>8</sup> Appendix to the Report of Committee on the State of the Paper Currency, 1737, quoted by McCrady, *South Carolina under the Royal Government*, 143. For the period 1720–1729 inclusive the *Case of the Province of South Carolina* (Carroll, Hist. Collections, II, 265) reports the export of 264,788 barrels, a yearly average of 26,479 barrels.

<sup>9</sup> The statistics for Nov., 1725 to Nov., 1735, are from Butel-Dumont. (*Histoire et Commerce des Colonies Angloises* . . . , 300.) His figure for 1724–25 is also identical with the one given. These statistics were reproduced in the table published in the article on rice in De Bow's *Industrial Resources*. (II, 408.) Several scattering figures from other sources do not exactly agree with the figures for corresponding years given in this list, but the agreement is sufficiently close to suggest a common official origin. Thus, Purry's *Description of South Carolina* (Carroll, Hist. Collections, II, 129) gives the exports from Mar., 1730 to Mar., 1731, at 41,957 barrels, but the terminal dates of the fiscal year are different from those employed in this table. The figure for 1728 is identical with that included in the Savannah Rice Association's *Report on American Rice Industry*, 4.

<sup>10</sup> The statistics for 1735–1747 are from De Bow's *Industrial Resources*. (II, 408.) They were compiled from the *South Carolina Gazette* (Charleston), and probably represent compilations from published shipping lists rather than official customhouse statistics. The statistics for Nov., 1735 to Nov., 1747, with the exception of one year, were published in the *Charleston Yearbook*, 1880, and from this utilized in compiling the table given by G. K. Holmes. (*Rice Crop of the United States*, U. S., Dept. Agric., Bur. of Statistics, *Circular* 34, p. 5.) Some of the figures are confirmed by scattering data for individual years from other sources. Thus, the figure for 1735–36 is identical with that given in the “Report of the Committee on the State of the Paper Currency,” 1737, as quoted by McCrady (*South Carolina under the Royal Government*, 143), and the one for 1739–40 is also given by Macpherson. (*Annals of Commerce*, III, 227.)

For the period 1730–1739 the *Case of the Province of South Carolina* (Carroll, Hist. Collections, II, 265) gives a total of 499,525 barrels exported. It should be noted that this figure exceeds by about 9,000 barrels the total figure in the present table for the period from Nov., 1730 to Nov., 1740, omitting the odd bags.

TABLE 37—Continued

Period	Unit	Charleston	Savannah	Total
1736-1737 (Nov.-Nov.)	{bbls.	42,619	.....	.....
	{bags	519	.....	.....
1737-1738 ( " " )	bbls.	34,324	.....	.....
1738-1739 ( " " )	"	67,117	.....	.....
1739-1740 ( " " )	"	91,110	.....	.....
1740-1741 ( " " )	{bbls.	80,040	.....	.....
	{bags	2,137	.....	.....
1741-1742 ( " " )	bbls.	46,196	.....	.....
1742-1743 ( " " )	"	73,416	.....	.....
1743-1744 ( " " )	"	80,788	.....	.....
1744-1745 ( " " )	"	59,627	.....	.....
1745-1746 ( " " )	"	54,101	.....	.....
1746-1747 ( " " )	"	54,146	.....	.....
1747-1748 (Mar. 25-Mar. 25) <sup>11</sup>	"	51,090	.....	.....
1748-1749 ( " " " " )	"	51,584	.....	.....
1749-1750 ( " " " " )	"	45,986	.....	.....
1750-1751 ( " " " " )	"	46,855	.....	.....
1751-1752 ( " " -Jan. 5)	"	81,852	.....	.....
1752-1753 (Jan. 5-Jan. 5)	"	21,465	.....	.....
1753-1754 ( " " " " )	"	51,933	.....	.....
1754-1755 ( " " " " )	"	85,828	.....	.....
1755-1756 ( " " " " )	"	92,210	2,299	94,509
1756-1757 ( " " " " )	"	72,230	2,997	75,217
1757-1758 ( " " " " )	"	62,985	2,998	65,983
1758-1759 ( " " " " )	"	64,337	2,371	66,708
1759-1760 ( " " " " )	"	53,782	3,603	57,385
1760-1761 ( " " " " )	"	64,652	3,283	67,935
1761-1762 ( " " " " )	"	96,270	4,666	100,936
1762-1763 ( " " " " )	"	84,760	6,509	91,269
1763-1764 ( " " " " )	"	103,671	7,702	111,373
1764-1765 ( " " " " )	"	110,216	9,690	119,906
1765-1766 ( " " " " )	"	96,644	12,224	108,868
1766-1767 ( " " " " ) <sup>12</sup>	"	.....	14,257	.....
1767-1768 ( " " " " ) <sup>13</sup>	"	118,279	11,281	129,560
1768-1769 ( " " " " ) <sup>14</sup>	"	124,829	17,773	141,090
1769-1770 ( " " " " ) <sup>15</sup>	"	.....	16,740	.....
1770-1771 (Nov. 1-Oct. 10) <sup>16</sup>	"	130,500	22,129	152,629
1771-1772 ( " " " " ) <sup>15</sup>	"	.....	25,232	.....
1772-1773 (Nov. 1-Aug. 2)	"	112,469	23,540	136,009
1773-1774 (Nov. 12-Nov. 7) <sup>17</sup>	"	118,482	.....	.....

<sup>11</sup> The statistics from Mar. 25, 1747 to Jan. 5, 1766, are from an apparently unpublished report to the Lords Commissioners for Trade and Plantations. (British Museum, *King's Manuscripts*, 206, f. 29. Transcripts, Library of Congress.) The list of exports in De Bow's *Industrial Resources* is continued for the period from Nov., 1747 to Oct. 10, 1771, except that the years 1755-56, 1756-57, 1757-58, 1769-70, and 1771-72 are missing. If allowance be made for the shifts in the terminal dates of the fiscal years, the statistics correspond reasonably closely with those quoted from *King's Manuscripts*.

<sup>12</sup> Export prohibited. *South Carolina Statutes* (Cooper), IV, 236.

<sup>13</sup> British Museum, *King's Manuscripts*, 206, f. 32 (Transcripts, Library of Congress). From itemized lists in the *South Carolina Gazette* for Oct. 31, 1767 to June 6, 1768, McCrady obtained for this year a total of 110,172 barrels. (*South Carolina under the Royal Government*, 390.)

<sup>14</sup> British Museum, *Additional Manuscripts*, 15485, pp. 4, 9, 11. An official account given by Governor Bull, quoted by Macpherson (*Annals of Commerce*, III, 491), gives 123,317 for Nov. 1, 1768 to Nov. 1, 1769.

<sup>15</sup> No data for Charleston.

<sup>16</sup> The statistics for Nov. 1, 1770 to Nov. 7, 1774, are from De Bow's *Industrial Resources*. (II, 408.) For the period 1770-1773 McCrady gives an average of 127,476 barrels. (*South Carolina under the Royal Government*, 396.) Ramsay (*History of South Carolina*, II, 205) says at the beginning of the Revolution the exports averaged about 142,000 barrels.

<sup>17</sup> In addition 6,594 barrels were shipped from Beaufort and Georgetown, South Carolina, where the trade was just beginning to develop.

TABLE 37—*Concluded*

Period	Unit	Charleston	Savannah	Total
1782 (Jan. 13–Nov. 14, 1783) <sup>18</sup> .....	bbls.	24,225	.....	.....
1783 <sup>19</sup> .....	"	61,974	.....	.....
1784.....	"	63,713	.....	.....
1785.....	"	65,857	.....	.....
1789 (Aug. 31–Dec. 31) <sup>20</sup> .....	"	9,157	.....	.....
1790–1791 (Oct. 1–Sept. 30).....	"	87,179	.....	.....
1791–1792 ( " " " " ).....	"	98,044	.....	.....
1792–1793 ( " " " " ).....	"	102,235	.....	.....
1793–1794 ( " " " " ).....	"	94,035	.....	.....
1794–1795 ( " " " " ).....	"	69,717	.....	.....
1795–1796 ( " " " " ).....	"	85,670	.....	.....
1796–1797 ( " " " " ).....	"	84,540	.....	.....
1797–1798 ( " " " " ).....	"	80,837	.....	.....
1798–1799 ( " " " " ).....	"	74,277	.....	.....
1799–1800 ( " " " " ).....	"	70,426	.....	.....
1800–1801 ( " " " " ).....	"	75,788	.....	.....

<sup>18</sup> Drayton, *View of South Carolina*, 166.<sup>19</sup> Charleston statistics for 1783–1785 are from La Rochefoucauld, *Travels*, II, 501.<sup>20</sup> Charleston statistics from Aug. 31, 1789 to Sept. 30, 1801, are from Drayton, *View of South Carolina*, 168; cf. *ibid.*, 173.

TABLE 38.—*Indigo exported from Charleston and Savannah for the fiscal years 1747–48 to 1800–01*<sup>1</sup>

Period	Unit	Charleston	Savannah	Total
1747–1748 (Mar. 25–Mar. 25) <sup>2</sup>	pounds	138,334	.....	.....
1748–1749 ( " " " " )	"	62,195	.....	.....
1749–1750 ( " " " " )	"	138,299	.....	.....
1750–1751 ( " " " " )	"	63,102	.....	.....
1751–1752 ( " " " " )	"	19,891	.....	.....
1752–1753 ( " "–Jan. 5)	"	3,787	.....	.....
1753–1754 (Jan. 5–Jan. 5)	"	28,474	.....	.....
1754–1755 ( " " " " )	"	129,645	.....	.....
1755–1756 ( " " " " )	"	303,531	4,508	308,039
1756–1757 ( " " " " )	"	222,805	9,335	232,140
1757–1758 ( " " " " )	"	876,393	18,150	894,543
1758–1759 ( " " " " )	"	563,025	9,600	572,625
1759–1760 ( " " " " )	"	695,661	555	696,216
1760–1761 ( " " " " )	"	507,584	11,746	519,330
1761–1762 ( " " " " )	"	384,053	1,552	385,605
1762–1763 ( " " " " )	"	255,305	9,133	264,438
1763–1764 ( " " " " )	"	438,908	8,764	447,672
1764–1765 ( " " " " )	"	529,079	14,151	543,230
1765–1766 ( " " " " )	"	335,836	16,019	351,855
1766–1767 ( " " " " ) <sup>3</sup>	"	.....	14,366	.....
1767–1768 (Oct. 31–Sept. 8) <sup>4</sup>	"	530,092	12,918	543,010
1768–1769 (Jan. 5–Jan. 5) <sup>5</sup>	"	497,988	20,041	518,029
1769–1770 ( " " " " ) <sup>3</sup>	"	.....	13,908	.....
1770–1771 ( " " " " ) <sup>3</sup>	"	.....	22,336	.....
1771–1772 (Nov. 23–Aug. 2) <sup>6</sup>	"	590,728	19,900	610,628
1772–1773 (Nov. 6–Nov. 12)	"	720,591	11,882	732,473
1773–1774 (Nov. 12–Oct. 7)	"	747,219	.....	.....
1774–1775 (Oct. 7–Feb. 24)	"	1,122,218	.....	.....
1782 (Jan. 13–Nov. 14, 1783) <sup>7</sup>	casks	827	.....	.....
1783 <sup>8</sup>	chests	2,051	.....	.....
1784	"	1,789	.....	.....
1785	"	2,163	.....	.....
1789 (Aug. 31–Dec. 31) <sup>9</sup>	casks	289	.....	.....
1790–1791 (Oct. 1–Sept. 30)	"	1,649	.....	.....
1791–1792 ( " " " " )	"	2,245	.....	.....
1792–1793 ( " " " " )	"	2,495	.....	.....
1793–1794 ( " " " " )	"	1,819	.....	.....
1794–1795 ( " " " " )	"	2,154	.....	.....
1795–1796 ( " " " " )	"	1,217	.....	.....
1796–1797 ( " " " " )	"	490	.....	.....
1797–1798 ( " " " " )	pounds	96,121	.....	.....
1898–1799 ( " " " " )	"	19,838	.....	.....
1799–1800 ( " " " " )	"	6,892	.....	.....
1800–1801 ( " " " " )	"	3,400	.....	.....

<sup>1</sup> The statistics for Savannah are from the list compiled by William Brown, Comptroller and Searcher of His Majesty's Customs at Savannah, and republished by Bernard Romans. (*East and West Florida*, 104.) The variations of the fiscal year given here apply only to Charleston, the terminal dates for Savannah being January 5, in all years. The sources for the Charleston statistics are given in the succeeding notes.

<sup>2</sup> Charleston statistics from Mar. 25, 1747 to Jan. 5, 1766, are from British Museum, *King's Manuscripts*, 206, f. 29 (Transcripts, Library of Congress).

<sup>3</sup> No data for Charleston.

<sup>4</sup> British Museum, *King's Manuscripts*, 206, f. 32 (Transcripts, Library of Congress).

<sup>5</sup> *Ibid.*, *Additional Manuscripts*, 15485, pp. 4, 19.

<sup>6</sup> Statistics for Charleston from Nov. 23, 1771 to Feb. 24, 1775, are from *ibid.*, 8133 B, f. 161. Remarking on the large amount for 1774–75, the writer says, "By which it will be found, there is already an increas'd quantity from thence, since January of 374999 pd<sup>s</sup> of Indigo more than was ever Imported from Carolina in any one year before this period."

<sup>7</sup> Drayton, *View of South Carolina*, 166.

<sup>8</sup> Charleston statistics for 1783–1785 inclusive are from La Rochefoucauld, *Travels*, II, 501.

<sup>9</sup> Charleston statistics from Aug. 31, 1789 to Sept. 30, 1801, are from Drayton, *View of South Carolina*, 168; cf. *ibid.*, 173. Daniel Coxe (*View of the United States*, 416) says South Carolina exported 839,666 pounds of indigo for the year Oct. 1, 1791 to Sept. 30, 1792.

TABLE 39.—*Estimates of total and of slave population in the British Southern Colonies in various years*<sup>1</sup>

Year	Virginia		Maryland		North Carolina		South Carolina		Georgia	
	Total	Slaves	Total	Slaves	Total	Slaves	Total	Slaves	Total	Slaves
1649	15,300 <sup>2</sup>	300 <sup>2</sup>								
1660	30,000 <sup>3</sup>		8,000 <sup>4</sup>							
1667			8,180 <sup>5</sup>							
1670	40,000 <sup>6</sup>	2,000 <sup>6</sup>								
1672							396 <sup>7</sup>			
1677					4,000 <sup>4</sup>					
1680							1,200 <sup>8</sup>			
1682							2,500 <sup>8</sup>			
1688	50,000 <sup>4</sup>		25,000 <sup>4</sup>							
1701			32,258 <sup>4</sup>		5,000 <sup>4</sup>		7,000 <sup>8</sup>			
1704			35,012 <sup>9</sup>	4,475 <sup>9</sup>						
1708	30,000 <sup>10</sup>	12,000 <sup>10</sup>					9,580 <sup>11</sup>	4,100 <sup>11</sup>		
1710			42,741 <sup>8</sup>	7,935 <sup>9</sup>						
1711					7,000 <sup>4</sup>					
1712			46,073 <sup>4</sup>	8,330 <sup>4</sup>						
1714							16,300 <sup>4</sup>	10,000 <sup>4</sup>		
1715	95,000 <sup>12</sup>	23,000 <sup>12</sup>	50,200 <sup>12</sup>	9,500 <sup>12</sup>	11,200 <sup>12</sup>	3,700 <sup>12</sup>	16,750 <sup>12</sup>	10,500 <sup>12</sup>		
1719			80,000 <sup>9</sup>	25,000 <sup>9</sup>						
1720							20,828 <sup>4</sup>	11,828 <sup>4</sup>		
1724							46,000 <sup>8</sup>	32,000 <sup>8</sup>		
1732					36,000 <sup>4</sup>	6,000 <sup>4</sup>				
1734							29,333 <sup>13</sup>	22,000 <sup>13</sup>		
1748			130,000 <sup>4</sup>	36,000 <sup>4</sup>						
1749							64,000 <sup>14</sup>	39,000 <sup>14</sup>		
1751									2,100 <sup>15</sup>	400 <sup>15</sup>
1753									3,447 <sup>16</sup>	1,066 <sup>16</sup>
1754	284,000 <sup>4</sup>	116,000 <sup>4</sup>	148,000 <sup>4</sup>	44,000 <sup>4</sup>	90,000 <sup>4</sup>	20,000 <sup>4</sup>	80,000 <sup>4</sup>	40,000 <sup>4</sup>	7,000 <sup>4</sup>	2,000 <sup>4</sup>
1755			153,505 <sup>17</sup>	43,495 <sup>17</sup>						
1756	293,472 <sup>18</sup>	120,156 <sup>18</sup>								
1760									9,578 <sup>19</sup>	3,578 <sup>19</sup>
1761			164,007 <sup>4</sup>	49,675 <sup>4</sup>						
1763							105,000 <sup>4</sup>	70,000 <sup>4</sup>		
1764					135,000 <sup>4</sup>					
1766									18,000 <sup>4</sup>	8,000 <sup>4</sup>
1770	447,008 <sup>20</sup>	187,606 <sup>20</sup>					120,178 <sup>21</sup>	75,178 <sup>21</sup>		
1773							175,000 <sup>4</sup>	110,000 <sup>4</sup>	33,000 <sup>4</sup>	15,000 <sup>4</sup>
1774					260,000 <sup>4</sup>					
1775	550,000 <sup>4</sup>		200,000 <sup>4</sup>							
1776		165,000 <sup>22</sup>		80,000 <sup>22</sup>		75,000 <sup>22</sup>		110,000 <sup>22</sup>	50,000 <sup>4</sup>	16,000 <sup>22</sup>
1782	567,614 <sup>4</sup>	270,762 <sup>4</sup>								
1783			254,000 <sup>4</sup>							
1790	747,610 <sup>23</sup>	292,627 <sup>23</sup>	319,728 <sup>23</sup>	103,036 <sup>23</sup>	393,751 <sup>23</sup>	100,572 <sup>23</sup>	249,073 <sup>14</sup>	107,094 <sup>23</sup>	82,548 <sup>23</sup>	29,264 <sup>23</sup>

<sup>1</sup> A complete census was rarely taken in any of the Southern Colonies, therefore the statistics are based almost entirely on contemporary estimates. Of the numerous estimates available, only those have been included which appear to have been made with some care, most of them official.

<sup>2</sup> *Perfect Description of Virginia* (Force, Tracts, II, No. 8), p. 1.

<sup>3</sup> Warden, *Account of the United States*, II, 181.

<sup>4</sup> United States, *Century of Population Growth*, 6-9.

<sup>5</sup> Johnson, B. T., *Foundation of Maryland*, 175.

<sup>6</sup> Berkeley's estimate, in Neill, *Virginia Carolorum*, 335.

<sup>7</sup> Letter of Dalton to Ashley, in South Carolina Historical Society, *Collections*, V, 382 & n.

<sup>8</sup> Winsor, *Narrative and Critical History of America*, V, 335.

<sup>9</sup> New York, *Documents relating to the Colonial History* (O'Callaghan), V, 605.

<sup>10</sup> Tithables, not total population. Ballagh, *Slavery in Virginia*, II, 7.

<sup>11</sup> South Carolina Historical Society, *Collections*, II, 217.

<sup>12</sup> Chalmers, G., *Revolt of the American Colonies*, II, 7.

<sup>13</sup> Carroll, *Historical Collections*, I, 306.

<sup>14</sup> Weston, P. C. J., *Documents connected with the History of South Carolina*, 92.

<sup>15</sup> Chalmers, G., *Revolt of the American Colonies*, II, 181.

<sup>16</sup> Jones, C. C., *History of Georgia*, I, 460.

<sup>17</sup> United States, *Century of Population Growth*, 185.

<sup>18</sup> Dinwiddie, *Official Records*, II, 353.

<sup>19</sup> Jones, C. C., *History of Georgia*, II, 23.

<sup>20</sup> Henry's Map of Virginia, 1770, in *William and Mary College Quarterly*, XIV, 85.

<sup>21</sup> Schaper, *Sectionalism and Representation in South Carolina*, 308.

<sup>22</sup> Halle, *Baumwollproduktion*, 40.

<sup>23</sup> United States, *Century of Population Growth*, 47.

TABLE 40.—*Production of raw cotton, 1790–1861*<sup>1</sup>

Year	Production	Year	Production	Year	Production
	<i>bales</i>		<i>bales</i>		<i>bales</i>
1790	3,135	1814	146,290	1838	1,091,838
1791	4,180	1815	208,986	1839	1,651,995
1792	6,270	1816	259,143	1840	1,346,232
1793	10,449	1817	271,682	1841	1,396,821
1794	16,719	1818	261,233	1842	2,033,354
1795	16,719	1819	349,007	1843	1,748,231
1796	20,899	1820	334,378	1844	2,076,737
1797	22,989	1821	376,176	1845	1,804,223
1798	31,348	1822	438,871	1846	1,602,087
1799	41,797	1823	386,625	1847	2,126,208
1800	73,145	1824	449,321	1848	2,612,299
1801	100,313	1825	532,915	1849	2,064,028
1802	114,943	1826	731,452	1850	2,133,851
1803	125,392	1827	564,263	1851	2,796,365
1804	135,841	1828	679,206	1852	3,127,067
1805	146,290	1829	762,800	1853	2,763,304
1806	167,189	1830	731,452	1854	2,705,252
1807	167,189	1831	804,598	1855	3,217,417
1808	156,740	1832	815,047	1856	2,870,678
1809	171,369	1833	929,990	1857	3,008,869
1810	177,638	1834	961,338	1858	3,754,346
1811	167,189	1835	1,060,711	1859	4,541,285
1812	156,740	1836	1,127,836	1860	3,837,402
1813	156,740	1837	1,426,891	1861	4,485,893

<sup>1</sup> United States, Dept. Agric., *Atlas of American Agriculture*, V, Sec. A, *Cotton*, Table IV, p. 18. The following notes regarding this table are from *ibid.*, 19:

Year—The year mentioned is for production, and begins October 1 of the growth year for the period 1790–1842 (1842 is a 9-month year); July 1, for 1843–1861.

Production—1790–1834, Woodbury's *Report on Cotton* (*House Ex. Doc.*, 24 Cong., 1 sess., No. 146) and 1839 (census production), total net weight in pounds divided by net weight per bale; 1835–1838, 1840–1848, 1850–1858, 1860, commercial crop, Latham, Alexander & Company's *Cotton Movement and Fluctuation*; 1861, commercial crop, J. L. Watkin's *Production and Price of Cotton for One Hundred Years* (U. S., Dept. Agric., Div. of Statistics, misc. series, *Bulletin* 9); 1849, 1859, Bureau of the Census.

Production (equivalent 500-pound bales, gross weight)—1790–1858, and 1860–1861, total net weight divided by 478.5 pounds net lint, allowance for tare (bagging and ties) 21.5 pounds; 1859, total gross weight divided by 500.



TABLE 41.—Weighted yearly averages and monthly prices in cents per pound of short-staple cotton at New Orleans for the crop years 1802-1860<sup>1</sup>

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Weighted average
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
1802	....	....	....	....	....	14.0	....	16.0	14.0	13.0	....	....	14.7
1803	....	....	....	15.5	15.8	16.0	14.5	14.5	13.5	14.5	14.5	16.5	15.0
1804	....	....	17.5	17.5	17.8	18.5	18.5	20.5	24.5	26.0	22.7	25.5	19.6
1805	24.0	21.8	21.5	23.0	23.5	24.5	22.7	24.5	21.5	22.5	22.5	22.0	23.3
1806	22.0	22.0	22.5	22.5	22.5	22.5	20.5	21.5	21.5	21.5	22.0	22.0	21.8
1807	22.0	22.0	21.3	19.0	19.0	15.5	13.7	15.3	14.4	13.9	13.4	13.7	16.4
1808	13.7	13.9	15.0	15.0	15.0	12.3	12.3	13.4	13.2	13.4	12.7	11.6	13.6
1809	11.6	11.6	11.6	13.2	13.4	13.4	13.4	14.5	14.5	14.0	14.8	14.8	13.6
1810	14.8	15.8	16.0	16.0	16.3	16.0	13.5	13.5	13.5	12.0	12.0	12.0	14.7
1811	13.8	10.0	10.0	08.5	08.5	09.3	....	08.8	....	....	07.9	....	08.9
1812	....	....	....	....	....	....	....	....	....	....	....	....	....
1813	....	....	....	....	....	....	....	....	15.5	....	....	....	15.5
1814	....	....	....	....	....	16.0	18.0	....	....	16.0	18.0	20.5	16.9
1815	21.5	25.5	25.0	27.5	27.0	....	....	....	....	32.5	....	....	27.3
1816	....	....	....	24.5	24.0	25.0	26.0	25.0	28.0	28.0	28.0	26.5	25.4
1817	25.5	26.5	26.5	31.0	30.5	30.0	....	....	....	29.0	31.5	33.0	29.8
1818	32.5	28.0	....	25.0	23.5	....	22.0	21.0	17.0	14.5	17.0	13.5	21.5
1819	13.5	13.5	17.0	14.5	14.5	14.5	....	13.0	....	15.5	16.0	....	14.3
1820	....	....	....	15.0	....	14.8	....	....	15.5	16.0	16.5	....	15.2
1821	....	....	16.8	16.8	....	18.0	....	18.3	16.5	15.5	15.5	14.3	17.4
1822	12.8	12.8	13.5	12.8	11.0	11.3	11.3	11.0	11.0	12.3	....	11.3	11.5
1823	12.3	14.5	17.5	14.8	15.5	13.8	13.8	13.8	14.3	15.8	15.8	15.8	14.5
1824	15.8	....	12.3	12.5	12.5	13.5	17.0	18.5	29.0	29.5	29.0	....	17.9
1825	....	....	15.0	13.3	12.5	12.5	11.8	10.5	11.0	10.0	09.5	09.5	11.9
1826	....	09.3	10.5	09.8	09.5	09.4	09.4	08.8	08.8	08.8	08.8	08.8	09.3
1827	10.0	10.3	10.3	09.3	09.0	09.3	09.4	10.0	10.4	10.8	10.8	10.3	09.7
1828	10.3	....	09.5	10.3	10.3	09.6	09.6	10.3	09.3	08.8	08.5	08.6	09.8
1829	....	....	09.3	08.3	08.8	08.8	09.1	08.8	09.1	09.1	09.4	....	08.9
1830	08.8	....	09.5	09.4	08.9	08.4	07.8	07.5	07.8	08.0	08.1	08.1	08.4
1831	08.1	08.1	08.4	08.5	09.0	09.0	09.4	09.4	09.4	08.1	08.3	08.5	09.0
1832	09.4	10.5	10.3	10.3	09.4	09.4	09.8	09.8	10.9	11.6	11.8	....	10.0
1833	....	18.0	13.8	12.3	10.3	09.8	10.0	10.8	11.3	11.3	11.8	11.8	11.2
1834	11.8	14.3	13.3	15.8	15.3	14.8	15.8	16.0	17.0	17.0	18.5	18.5	15.5
1835	....	15.3	14.3	14.6	14.5	14.5	15.5	16.8	15.5	15.5	14.8	14.8	15.2
1836	....	15.0	15.3	14.3	14.1	12.8	13.8	11.5	11.5	....	....	11.3	13.3
1837	09.4	09.8	09.3	09.1	09.1	09.1	08.1	08.8	09.3	09.3	08.4	09.3	09.0
1838	08.8	10.4	10.5	11.5	12.3	12.9	13.8	14.6	14.4	14.3	12.5	10.3	12.4
1839	09.3	10.3	09.3	07.5	07.9	07.3	06.5	06.8	06.9	07.5	07.8	08.3	07.9
1840	08.3	08.4	08.3	08.4	08.5	09.6	09.6	10.0	10.1	09.8	09.3	09.0	09.1
1841	08.5	08.6	08.6	08.3	07.9	07.3	07.4	07.5	06.6	06.6	07.6	06.3	07.8
1842	07.4	06.1	06.0	05.6	05.8	05.2	04.9	05.4	06.0	06.0	06.0	06.0	05.7
1843	06.6	07.1	07.1	09.0	07.7	07.7	07.8	07.1	07.2	07.1	07.0	07.0	07.5
1844	05.8	05.8	05.3	05.3	04.7	05.4	05.3	06.1	06.1	06.1	06.1	06.3	05.5
1845	06.6	07.3	06.8	06.8	06.6	06.7	06.7	06.8	06.3	06.6	06.8	07.0	06.8
1846	08.1	09.4	09.2	09.1	10.1	10.1	10.5	10.7	11.4	09.3	09.9	10.6	09.9
1847	10.4	09.2	07.1	06.7	06.7	06.7	07.0	05.9	05.1	05.5	05.6	06.0	07.0
1848	05.5	05.3	04.9	05.4	05.8	06.1	06.3	06.1	06.6	06.9	07.1	09.3	05.8
1849	09.3	09.9	10.3	10.3	11.2	11.2	10.6	11.1	12.1	11.7	12.1	12.2	10.8
1850	12.4	13.1	13.1	13.3	12.9	11.3	10.0	10.7	08.6	08.1	07.8	06.6	11.7
1851	08.4	06.9	07.0	07.6	07.3	07.4	07.3	07.1	08.3	09.1	08.9	09.1	07.4
1852	09.8	09.6	09.6	07.9	08.9	08.5	09.0	10.0	09.3	09.6	10.0	10.3	09.1
1853	10.9	09.3	08.5	09.0	09.0	08.4	08.9	08.0	07.5	07.6	08.0	08.0	08.8
1854	07.9	08.1	08.1	07.5	08.4	08.5	08.6	09.5	10.3	11.9	10.5	09.6	08.4
1855	09.2	09.1	08.5	08.8	08.6	09.1	09.2	10.0	10.3	10.6	10.6	10.6	09.1
1856	11.4	11.9	11.4	11.9	12.3	12.6	13.1	13.8	13.6	13.6	14.6	14.9	12.4
1857	15.1	12.0	11.6	10.6	09.4	11.4	11.1	11.1	11.4	11.1	11.9	11.1	11.2
1858	11.9	11.9	11.1	11.5	11.5	10.9	11.4	12.3	11.0	11.4	11.4	11.6	11.5
1859	11.1	10.8	11.0	10.9	10.8	10.7	10.7	10.8	10.8	11.0	10.5	10.6	10.8
1860	10.3	10.6	10.9	11.1	11.1	10.8	11.8	12.5	11.3	10.6	10.5	11.0	11.1

TABLE 41—Continued

<sup>1</sup> Note: Prices are for Louisiana and Mississippi cotton, of middling or second grade. If these quotations were missing, prices of similar grades of Alabama cotton were substituted if obtainable. In a few cases estimates have been inserted, based on quotations of higher or lower grades and the usual differential in contemporary quotations between them and middling. One price per month has been taken, as near the middle of the month as possible in the sources available. Occasionally, when prices for the middle of the month were not available, the average of earlier and later quotations (or one of these) has been substituted. The crop year, September–August, is used, e.g., 1807 consists of September to December, 1807 and January to August, 1808.

Sources:

I. The prices quoted for 1802–1811 inclusive are from data furnished through the courtesy of George R. Taylor, from unpublished material he has collected, obtained principally from various issues of the *Louisiana Gazette* (New Orleans).

II. The following quotations for the period 1814–1818 were obtained through the courtesy of Arthur H. Cole, whose assistant, Miss Nora Howells, found them in her search through files in the libraries in New Orleans: June–Aug., 1814; Sept.–Dec., June, 1815; Jan.–Aug., 1816; Sept.–Dec., Feb., June, 1817; Sept., Dec., Mar.–June, Aug., 1818. The price for June, 1815, is from the *New Orleans Courier*, May 2, 1833, which quotes the *New Orleans Price Current* of June 19, 1816. The other prices were located in various issues of the *Louisiana Gazette*.

III. The prices for the following dates were sent by Mr. Henry M. Gill, formerly of the New Orleans Public Library, who obtained them through the kindness of Mr. Henry Plauché, of the New Orleans Cotton Exchange: Dec., Apr., 1829; Mar., June, Aug., 1830; Sept., Nov.–Dec., 1831; Oct., 1832; Oct., 1835; Aug., 1836; July, 1842; Sept.–Oct., 1843; Jan., 1844; Oct., 1845; Mar.–July, 1860.

IV. *New York Shipping and Commercial List*, quoting prices current at New Orleans:

1814, Feb.–Mar. Apr. 7, 1815, quoting New Orleans for Feb. 24, 1815. Apr. 21, 1815 gave "After the Peace" at New Orleans, which was put in the table as of March.

1816, Dec. Feb. 4, 1817, quoting New Orleans for Dec. 18, 1816.

1817, Jan. Feb. 6, 1818, quoting New Orleans for Jan. 1, 1818.

1818, Oct., Jan., July. Nov. 20, 1818, Feb. 12, Aug. 13, 1819, quoting New Orleans respectively for Oct. 13, 1818, Jan. 13, July 14, 1819.

1819, Sept.–Feb. Dec. 17, 1819, Jan. 7, 21, 1820, quoting New Orleans for Sept. 29, Oct. 13, Nov. 17, Dec. 8, 22, 1819. Feb. 11, Mar. 20, 1820, quoting New Orleans for Jan. 12, Feb. 16, 1820.

V. *New Orleans Price Current*:

Sept.–Aug., 1823; Sept.–June, 1824; Nov.–Aug., 1825; Oct.–Aug., 1826; Oct.–Aug., 1827; Nov.–July, 1828; July–Aug., 1838; Sept.–July, 1840.

VI. *Louisiana Courier* (New Orleans, English or French edit.):

July, 1824; Sept., 1827; Nov., Jan.–Mar., May–July, 1829; Jan.–Feb., Apr.–May, July, 1830; Oct., Jan.–Aug., 1831; Sept., Nov.–July, 1832; Oct.–July, 1833; Sept.–Aug., 1834; Nov.–Aug., 1835; Oct.–May, 1836; Sept.–Aug., 1837; Sept.–Dec., Mar.–June, 1838; Sept.–Aug., 1839; Jan., 1854–Dec., 1858; Jan., 1859–Nov., 1860.

VII. *New Orleans Commercial Bulletin*:

Aug., 1840; Sept., 1841–Dec., 1842; July, 1843–Dec., 1844; Jan., 1845–Dec., 1848; Apr.–Aug., 1848; Oct.–Aug., 1849; Sept.–Nov., Jan.–Aug., 1850; Sept., 1851–Dec., 1854; Jan., 1858–Dec., 1859.

VIII. Miscellaneous sources for scattering quotations:

1813, May. *Cahawba Press and Alabama State Intelligencer*, June 2, 1821, quoting extract of a letter enclosing a price current of May 14, 1814.

1815, Jan. *Orleans Gazette and Commercial Advertiser*, Jan. 5, 1816.

1818, Aug. *Louisville Public Advertiser* (Kentucky), Aug. 28, 1819, quoting New Orleans for Aug. 11, 1819.

1819, Apr. *Weekly Messenger* (Russellville, Ky.), May 6, 1820, quoting New Orleans for Apr. 15, 1820.

—, June, July. *Louisiana Herald* (Alexandria), June 24, July 1, 1820.

1820, Dec., Feb., June, July. *Cahawba Press and Alabama State Intelligencer*, Jan. 20, Aug. 13, June 30, July 16, 1821.

—, May. *Louisiana Herald* (Alexandria), June 2, 1821.

1821, Nov. *Asylum and Feliciana Advertiser* (St. Francisville, La.), Nov. 29, 1821.

—, Dec., Feb. *Louisiana Herald* (Alexandria), Dec. 15, 1821, Mar. 9, 1822.

—, Apr. *Louisiana Advertiser* (New Orleans), Apr. 29, 1822.

—, May–Aug. *The Republic* (Baton Rouge), May 28, July 2, 23, Aug. 20, 1822.

1822, Sept.–Nov., Jan.–June, Aug. *Ibid.*, Oct. 1, 22, Nov. 26, 1822; Jan. 25, Feb. 26, Mar. 26, Apr. 30, May 21, June 17, Aug. 16, 1823.

1828, Sept. *New Orleans Argus*, Sept. 15, 1828.

—, Aug. *Mobile Commercial Register*, Aug. 11, 28, 1829.

1830, Sept., Nov.–Dec. *Ibid.*, Sept. 25, Nov. 18, Dec. 16, 1830.

1838, Jan. *Mobile Commercial Register*, Jan. 28, 1839.

—, Feb. *Louisianian and Journal of Commerce* (New Orleans), Feb. 16, 1839.

TABLE 41—*Concluded*

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- 1842, Jan.-Apr. *Weekly Picayune* (New Orleans), Jan. 16, Feb. 13, Mar. 13, Apr. 17, 1843.  
 —, May. *Mobile Register and Journal*, May 16, 1843.  
 —, June, Aug. *New Orleans Bee*, June 7, Aug. 19, 1843.  
 1843, Nov.-June. *Mobile Register and Journal*, Nov. 24, Dec. 19, 1843; Jan. 17, Feb. 27, Mar. 15, Apr. 12, May 27, June 17, 1844.  
 1844, Feb.-July. *Carroll Watchman* (Providence, La.), Feb. 15, Mar. 15, Apr. 28, May 13, June 3, July 8, 1845.  
 —, Aug. *Daily Picayune* (New Orleans), Aug. 10, 1845.  
 1845, Sept., Nov.-Dec. *Ibid.*, Sept. 23, Nov. 22, Dec. 14, 1845.  
 1848, Jan.-Mar. *New Orleans Weekly Delta*, Jan. 15, Feb. 12, Mar. 12, 1849.  
 1849, Sept. *Ibid.*, Sept. 17, 1849.  
 1850, Dec. *De Bow's Review*, XI, 489.  
 1860, Dec. *New Orleans Daily Crescent*, Dec. 28, 1860.  
 —, Jan.-Feb. *Daily Picayune* (New Orleans), Jan. 20, Feb. 15, 1861.  
 —, Aug. *Daily True Delta* (New Orleans), Aug. 3, 1861.

TABLE 42.—Exports and export prices of rice shipped from the United States, 1712–1860<sup>1</sup>

Year	Exports	Price	Year	Exports	Price	Year	Exports	Price
	1,000 pounds	cis. per lb.		1,000 pounds	cis. per lb.		1,000 pounds	cis. per lb.
1712–16 (average)	3,144	...	1767	68,267	2.2	1819	42,998	3.9
1717	3,187	...	1768	67,234	2.2	1820	52,933	2.8
1718	3,190	...	1769	75,492	2.2	1821	52,253	3.0
1719	5,444	2.2	1770	76,511	3.4	1822	60,819	3.0
1721	8,752	1.0	1771	70,000	3.4	1823	67,937	2.8
1724	7,094	...	1772	68,078	3.4	1824	58,209	3.3
1725	9,212	...	1773	62,538	...	1825	66,638	2.9
1726	10,754	...	1782	12,112	...	1826	80,111	2.9
1727	11,962	...	1783	30,987	...	1827	105,011	2.5
1728	12,954	...	1784	31,857	...	1828	102,982	2.4
1729	16,689	...	1785	32,929	...	1829	78,418	2.5
1730	19,744	1.4	1786	32,598	...	1830	69,910	3.0
1731	18,534	...	1788	50,000	...	1831	72,196	3.0
1732	25,363	...	1789	60,507	2.9	1832	86,498	3.2
1733	15,162	...	1790	74,136	2.6	1833	73,132	2.9
1734	22,866	...	1791	85,057	2.3	1834	66,511	3.3
1735	26,485	...	1792	80,767	2.9	1835	127,790	2.0
1736	21,413	2.9	1793	69,892	2.7	1836	63,650	4.0
1737	17,162	...	1794	83,116	3.5	1837	42,629	4.4
1738	35,742	1.9	1795	78,623	5.9	1838	55,992	4.4
1739	45,555	2.4	1796	36,067	...	1839	60,996	3.2
1740	40,447	2.7	1797	75,146	...	1840	60,970	3.3
1741	23,098	...	1798	66,359	...	1841	68,770	2.8
1742	36,708	1.9	1799	67,234	...	1842	64,060	2.6
1743	40,389	1.3	1800	56,920	...	1843	80,829	2.7
1744	29,814	0.9	1801	47,893	...	1844	71,173	3.0
1745	27,051	0.9	1802	49,103	5.0	1845	74,404	3.5
1746	27,073	2.2	1803	47,031	4.9	1846	86,656	4.2
1747	27,566	1.6	1804	34,098	5.0	1847	60,242	3.9
1748	20,517	1.9	1805	61,576	4.3	1848	77,317	3.3
1749	24,111	...	1806	56,815	4.2	1849	76,241	3.5
1750	30,806	1.8	1807	5,537	4.0	1850	63,354	3.4
1751	39,217	3.4	1808	70,144	3.0	1851	71,840	3.4
1752	17,761	2.2	1809	78,805	3.3	1852	40,624	4.1
1753	52,341	1.7	1810	71,614	3.3	1853	63,073	4.2
1754	48,389	1.9	1811	46,314	3.1	1854	39,422	4.3
1758	25,942	...	1812	72,506	4.1	1855	67,616	3.5
1759	30,403	2.2	1813	6,886	3.3	1856	68,323	3.4
1760	52,342	1.8	1814	77,549	3.6	1857	58,122	3.2
1761	43,592	1.5	1815	82,706	4.3	1858	77,070	2.9
1762	50,530	2.4	1816	47,578	5.0	1859	81,633	3.2
1763	50,921	2.0	1817	52,909	6.1	1860	43,512	3.2
1764	53,646	2.5	1818	45,914	4.6			

<sup>1</sup> Statistics of exports are from Holmes, G. K., *Rice Crop of the United States* (U. S., Dept. Agric., Bur. of Statistics, Circular 34). Statistics of prices are compiled from the same publication. Essentially the same statistics with a few minor differences, and for a less extensive period, may be found in De Bow's *Industrial Resources*, II, 408–409. However, in that publication the quotations are in barrels and tierces instead of in pounds. Cf. Schaper, *Sectionalism and Representation in South Carolina*, 316; *Hunt's Merchants' Magazine*, XXII, 506.

Holmes gives the following explanation of the data used:

"The years 1712–16 begin at Christmas; 1718–19, 1768–70 are calendar years and are tabulated under 1717, 1718, 1767, 1768, 1769. All the other years begin Nov. 1, as nearly as can be ascertained until 1789, which begins Aug. 1 (14-month year, partly duplicating previous year); 1790–1842 begin Oct. 1 (1842 is a 9-month year); 1843 and following years begin July 1." The statistics for exports for the colonial period were derived directly or indirectly from the records of the Charleston customhouse, and probably represent only the rice exported from Charleston, except that for the years 1760, 1770, and 1772 the figures are for exports from South Carolina and Georgia. For the years 1712–1716 and 1767–1769 the statistics represent all exports of rice from the British Colonies in America. After 1789 the figures are for exports from the United States.

TABLE 43.—*Annual averages of monthly prices of sea-island cotton at Charleston, South Carolina, 1800–1860<sup>1</sup>*

Year	Price	Year	Price	Year	Price	Year	Price
	<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>
1800	44.9	1816	44.8	1831	20.0	1846	26.6
1801	46.4	1817	43.5	1832	18.2	1847	31.4
1802	44.2	1818	63.2	1833	20.2	1848	19.0
1803	51.5	1819	42.1	1834	25.1	1849	23.2
1804	38.6	1820	32.8	1835	34.8	1850	27.8
1805	51.6	1821	26.7	1836	39.5	1851	29.3
1806	36.7	1822	24.8	1837	46.0	1852	37.2
1807	34.3	1823	24.5	1838	35.3	1853	41.2
1808	24.7	1824	24.6	1839	38.7	1854	33.4
1809	25.4	1825	54.3	1840	22.5	1855	31.6
1810	28.4	1826	32.7	1841	26.8	1856	39.8
1811	22.5	1827	21.1	1842	18.1	1857	38.1
1812	17.5	1828	25.6	1843	16.6	1858	29.3
1813	19.0	1829	22.9	1844	18.8	1859	35.2
1814	25.3	1830	24.8	1845	26.6	1860	47.0
1815	37.9						

<sup>1</sup> Prices from 1801 to 1844 inclusive are compiled from monthly quotations generously supplied by Professor George R. Taylor, who collected them under the auspices of the International Committee on Price History. The series from 1845 to 1860 were compiled from quotations collected by the author from contemporary Charleston papers.

It is difficult to construct a satisfactory price series for sea-island cotton. The market was an extremely narrow one, especially from about July to November inclusive, for the months from December to June inclusive comprised the period of active sales. The variation in classes and grades was large for so small a total crop, and many transactions were private and did not appear in market quotations. Finally, the methods of quotation in the current press were extremely irregular. No single class or grade was regularly reported. Even for the same class and grade market quotations sometimes show a wide range on a given day, and quotations are often for a range of grades.

From 1800 to 1831 inclusive the quotations are for sea-island cotton without specification as to grade, presumably representing mainly the range of prices for the grades most commonly sold. For 1832 and the first five months of 1833 the quotations used are for Santees, and for the remainder of 1833 and all of 1834 Santees and Mains. Those classes seem to be most consistent for those years in relation to price levels just before and just afterward. For 1835 to 1844 inclusive all quotations are for Sea Islands, but various grades are represented, mostly ranging from common to good or inferior to good. From 1845 to 1860 quotations are mainly for Sea Islands, although several quotations for Santees, found to be fairly in line with the middle grades of Sea Islands, are included. For a large number of cases grades are not given. The other quotations range mostly from common to middling fine. By taking the mean of the extremes the variation due to differences in grade range is greatly reduced. Monthly quotations are averaged for the calendar year, and therefore represent mainly transactions based on cotton raised in the preceding year, although a little new crop made its appearance in December.

One quotation has been taken for each month, as near the middle of the month as available. From 1800 to 1815 quotations are mainly from the *Carolina Gazette* or *Charleston Courier*, with scattering quotations from the *City Gazette and Daily Advertiser*, the *South Carolina State Gazette and Timothy & Mason's Daily Advertiser*, and the *Investigator*. From 1816 to 1860 all quotations are from the *Charleston Courier*.

TABLE 44.—*Sea-island cotton exported from the United States, 1805-1860*<sup>1</sup>

Year	Quantity	Year	Quantity	Year	Quantity
	<i>million pounds</i>		<i>million pounds</i>		<i>million pounds</i>
1805	8.8	1824	9.5	1843	7.5
1806	6.1	1825	9.7	1844	6.1
1807	8.9	1826	6.0	1845	9.4
1808	0.9	1827	15.1	1846	9.4
1809	8.7	1828	11.3	1847	6.3
1810	8.6	1829	12.8	1848	7.7
1811	8.0	1830	8.1	1849	12.0
1812	4.4	1831	8.3	1850	8.2
1813	4.1	1832	8.7	1851	8.3
1814	2.5	1833	11.1	1852	11.7
1815	8.4	1834	8.1	1853	11.2
1816	9.9	1835	7.8	1854	10.5
1817	8.1	1836	7.8	1855	13.1
1818	6.5	1837	5.3	1856	12.8
1819	7.5	1838	7.3	1857	12.9
1820	11.6	1839	5.1	1858	12.1
1821	11.3	1840	8.8	1859	13.7
1822	11.3	1841	6.2	1860	15.6
1823	12.1	1842	7.3		

<sup>1</sup> United States, Dept. Treas., Bur. of Statistics, *Cotton in Commerce*, 20.

TABLE 45.—*Production of sugar in Louisiana, 1823-24 to 1859-60, and average price per hogshead and total value, 1834-35 to 1859-60*<sup>1</sup>

Year	Hogsheads	Pounds	Average price per hogshead	Total value
1823-24.....	30,000	.....	.....	.....
1824-25.....	32,000	.....	.....	.....
1825-26.....	30,000	.....	.....	.....
1826-27.....	32,000	.....	.....	.....
1827-28.....	30,000	.....	.....	.....
1828-29.....	45,000	.....	.....	.....
1829-30.....	71,000	.....	.....	.....
1830-31.....	88,000	.....	.....	.....
1831-32.....	48,000	.....	.....	.....
1832-33.....	70,000	.....	.....	.....
1833-34.....	75,000	.....	.....	.....
1834-35.....	100,000	100,000,000	\$60.00	\$6,000,000
1835-36.....	30,000	30,000,000	90.00	2,700,000
1836-37.....	70,000	70,000,000	60.00	4,200,000
1837-38.....	65,000	65,000,000	62.50	4,062,500
1838-39.....	70,000	70,000,000	62.50	4,375,000
1839-40.....	115,000	115,000,000	50.00	5,750,000
1840-41.....	87,000	87,000,000	55.00	4,785,000
1841-42.....	90,000	90,000,000	40.00	3,600,000
1842-43.....	140,000	140,000,000	42.50	4,750,000
1843-44.....	100,000	100,000,000	60.00	6,000,000
1844-45.....	200,000	200,000,000	45.00	9,000,000
1845-46.....	186,000	186,650,000	55.00	10,265,750
1846-47.....	140,000	140,000,000	70.00	9,800,000
1847-48.....	240,000	240,000,000	40.00	9,600,000
1848-49.....	220,000	220,000,000	40.00	8,800,000
1849-50.....	247,923	269,769,000	50.00	12,396,150
1850-51.....	211,201	231,194,000	60.00	12,678,180
1851-52.....	237,547	257,138,000	50.00	11,827,350
1852-53.....	321,934	368,129,000	48.00	15,452,688
1853-54.....	449,324	495,156,000	35.00	15,726,340
1854-55.....	346,635	385,726,000	52.00	18,025,020
1855-56.....	231,429	254,569,000	70.00	16,199,890
1856-57.....	73,296	81,373,000	110.00	8,137,360
1857-58.....	279,697	307,666,700	64.00	17,900,608
1858-59.....	362,296	414,796,000	69.00	24,998,424
1859-60.....	221,840	255,115,750	82.00	18,190,880

<sup>1</sup> Statistics of production in hogsheads are from United States, Dept. Treas., Bur. of Statistics, *Tables in Regard to Sugar and Molasses*, 664, Table 225. The statistics from 1826-27 to 1830-31 inclusive are considerably different from estimates published in *De Bow's Review*, I, 54. With the exception of slight differences in the years 1845-46, 1850-51, 1851-52, 1852-53, 1855-56, and 1856-57 the figures for the period from 1834-35 to 1859-60 inclusive are in agreement with estimates published in the *New Orleans Price Current* and reprinted in *De Bow's Review*, XXIX, 524, and in *Hunt's Merchants' Magazine*, XLIV, 723.

The statistics of production in pounds, the average price per hogshead, and the total value are from *Hunt's Merchants' Magazine*, XLIV, 723, and are also found in *De Bow's Review*, XXIX, 524, with the exception of the figure for the total value in the year 1837-38. Hunt and De Bow agree on the figure for total value in the year 1842-43, but according to the other data in this table that figure should be \$5,950,000. It is given as \$5,750,000 in *Hunt's Merchants' Magazine*, XXXIX, 638.

TABLE 46.—Wholesale prices of sugar at New Orleans, 1818–1860<sup>1</sup>

Year	Average Price	Year	Average Price	Year	Average Price	Year	Average Price
	<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>
1818	9 $\frac{1}{2}$	1829	6 $\frac{3}{8}$	1840	4	1851	5 $\frac{7}{8}$
1819	9 $\frac{7}{8}$	1830	7	1841	5 $\frac{5}{8}$	1852	5 $\frac{1}{8}$
1820	11 $\frac{1}{8}$	1831	5 $\frac{1}{8}$	1842	4 $\frac{1}{8}$	1853	4 $\frac{3}{8}$
1821	7 $\frac{3}{4}$	1832	5 $\frac{1}{2}$	1843	4 $\frac{1}{2}$	1854	4 $\frac{1}{4}$
1822	8 $\frac{5}{8}$	1833	6 $\frac{1}{4}$	1844	5 $\frac{3}{4}$	1855	6 $\frac{1}{8}$
1823	6 $\frac{1}{4}$	1834	5 $\frac{7}{8}$	1845	6 $\frac{7}{8}$	1856	8 $\frac{7}{8}$
1824	7 $\frac{1}{2}$	1835	7 $\frac{1}{4}$	1846	6 $\frac{3}{8}$	1857	10 $\frac{1}{4}$
1825	6 $\frac{1}{4}$	1836	8 $\frac{5}{8}$	1847	6 $\frac{3}{4}$	1858	7 $\frac{1}{8}$
1826	6 $\frac{3}{4}$	1837	5 $\frac{1}{2}$	1848	4 $\frac{1}{4}$	1859	7 $\frac{1}{8}$
1827	6 $\frac{3}{8}$	1838	6 $\frac{3}{8}$	1849	4 $\frac{3}{4}$	1860	8 $\frac{1}{8}$
1828	6 $\frac{3}{8}$	1839	6 $\frac{1}{8}$	1850	5 $\frac{1}{4}$		

<sup>1</sup> For individual quotations for 1815–1817 inclusive, see text, p. 744.

Quotations were available for only three months of 1845; for only four months of 1818, 1819, 1832, and 1834 respectively; for five months in 1821, 1823, 1830, 1831, 1833, and 1836. For all other years quotations were available for 6 months or more. All prices are averages for the calendar year.

In the earlier years many of the quotations are merely for sugar, without designation of grade. In some cases quotations are for "on plantations" and "in town." The former are employed for the averages. In a few cases where only quotations for "in city" are available, they are reduced to a plantation basis by subtracting the average differential for the years 1837–1840 inclusive—about  $\frac{1}{4}$  cent. Where quotations by grade are available, mainly from 1839 to 1860, the "prime" quotations are employed.

Quotations for 1820 are from the *Mobile Gazette and Commercial Advertiser*; for 1823 from the *Louisiana Herald*, with one exception; for 1824 to 1829 inclusive, from the *New Orleans Price Current*; for 1830, 1838, 5 months of 1839, four months of 1840, and for 1855–1858 inclusive, and 1860, from the *Courier* (New Orleans); for 1831–1837 inclusive from *Le Courier de la Louisiane*; for 1841, 1842, six months of 1844, for 1846–1854 inclusive, and 1859 from the *New Orleans Commercial Bulletin*; for 1843 five quotations and for 1845 three quotations are from the *New Orleans Picayune*. Quotations for 1826 are from the *Baton Rouge Gazette*; for 1818 from the *New York Shipping and Commercial List*. For 1819, 1821, and 1822 quotations are from scattering sources, including, in addition to those already mentioned, the *Cahawba Press and Alabama State Intelligencer*, the *Alabama Republican* (Huntsville), and *Orleans Gazette and Commercial Advertiser*. All quotations are in New Orleans prices.



TABLE 47.—Exports of unmanufactured (leaf) tobacco and of snuff and other manufactured tobacco from the United States, 1790–1860<sup>1</sup>

Year	Unmanufactured	Manufactured		
		Snuff	Other manufactured	Total
	<i>hogsheads</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>
1790	118,460	15,350	.....	15,350
1791	101,272	15,689	81,122	96,811
1792	112,428	10,042	117,874	127,916
1793	59,947	35,559	137,784	173,343
1794	72,958	37,415	19,370	56,785
1795	61,050	129,436	20,263	149,699
1796	69,018	267,046	29,181	296,227
1797	58,167	65,703	12,805	78,508
1798	68,567	114,151	142,269	256,420
1799	96,070	109,682	416,076	525,758
1800	78,680	41,453	457,713	499,166
1801	103,758	52,297	472,282	524,579
1802	77,721	43,161	233,591	276,752
1803	86,291	17,534	152,415	169,949
1804	83,343	20,068	278,071	298,139
1805	71,252	23,531	404,929	428,460
1806	83,186	39,005	342,728	381,733
1807	62,232	46,077	228,875	274,952
1808	9,576	12,836	23,496	36,332
1809	53,921	35,955	314,880	350,835
1810	84,134	33,858	495,427	529,285
1811	35,828	19,840	732,713	752,553
1812	26,094	3,360	583,258	586,618
1813	5,314	.....	283,512	283,512
1814	3,125	.....	79,377	79,377
1815	85,337	14,655	1,019,390	1,034,045
1816	69,241	52,650	523,596	576,246
1817	62,365	5,080	1,115,874	1,120,954
1818 <sup>2</sup>	84,337	5,513	1,486,240	1,491,753
1819	69,427	13,710	926,833	940,543
1820	83,940	4,996	593,358	598,354
1821	66,858	44,552	1,332,949	1,377,501
1822	83,169	44,602	1,414,424	1,459,026
1823	99,009	36,684	1,987,507	2,024,191
1824	77,883	45,174	2,477,990	2,523,164
1825	75,984	53,920	1,871,368	1,925,288
1826	64,098	61,801	2,179,774	2,241,575
1827	100,025	45,812	2,730,255	2,776,067
1828	96,278	35,655	2,637,411	2,673,066
1829	77,131	19,509	2,619,399	2,638,908
1830	83,810	29,425	3,199,151	3,228,576
1831	86,718	27,967	3,639,856	3,667,823
1832	106,806	31,175	3,456,071	3,487,246
1833	83,153	13,453	3,790,310	3,803,763
1834	87,979	57,826	3,956,579	4,014,405
1835	94,353	36,471	3,817,854	3,854,325
1836	109,442	46,018	3,246,675	3,292,693
1837	100,232	40,883	3,615,591	3,656,474
1838	100,593	75,083	5,008,147	5,083,230
1839	78,995	42,467	4,214,943	4,257,410
1840	119,484	37,132	6,787,165	6,824,297
1841	147,828	68,553	7,503,644	7,572,197
1842	158,710	42,668	4,434,214	4,476,882
1843	94,454	20,455	3,404,252	3,424,707
1844	163,042	28,668	6,046,878	6,075,546
1845	147,168	44,399	5,312,971	5,357,370
1846	147,998	52,458	6,854,856	6,907,314
1847	135,762	37,051	7,844,592	7,881,643

TABLE 47—*Concluded*

Year	Unmanufactured	Manufactured		
		Snuff	Other manufactured	Total
	<i>hogsheads</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>
1848	130,665	36,122	6,698,507	6,734,629
1849	101,521	49,888	7,159,397	7,209,285
1850	145,729	44,690	5,918,583	5,963,273
1851	95,945	37,422	7,235,358	7,272,780
1852	137,097	58,475	8,436,153	8,494,628
1853	159,853	39,641	10,561,692	10,601,333
1854	126,107	36,287	10,273,152	10,309,439
1855 <sup>3</sup>	150,213	72,534	9,624,282	9,696,816
1856	116,962	86,055	10,003,606	10,089,661
1857	156,848	50,401	7,456,666	7,507,067
1858	127,670	37,245	11,210,574	11,247,819
1859	198,846	239,148	14,912,811	15,151,959
1860	167,274	39,923	17,697,309	17,737,232

<sup>1</sup> United States, *American State Papers, Commerce and Navigation*, I-II, for the years 1790 to 1822 inclusive; *idem*, Register of the Treasury, *Annual Reports on Commerce and Navigation*, for the years 1823 to 1860 inclusive.

The fiscal year is Oct. 1 to Sept. 30 for the period 1790–1842. Eighteen forty-three is a 9-month year, ending June 30. For the period 1844–1860 the fiscal year is July 1 to June 30. Reexports are included for 1790–1802, and excluded for 1803–1860.

<sup>2</sup> In addition to the exports given in this table there were 1,383,029 pounds of “stemmed” and 4,364,303 pounds of “stems” for the year 1818, and respectively 941,179 and 3,713,000 pounds for 1819.

<sup>3</sup> In addition the following exports are given for the years 1855–1860:

Year	Cases	Bales	Year	Cases	Bales
1855	13,366	12,913	1858	4,841	12,640
1856	9,384	17,772	1859	7,188	19,651
1857	5,631	14,432	1860	15,035	17,817

TABLE 48.—*Tobacco received at New Orleans from the interior, 1822–1860*<sup>1</sup>

Date	Hogsheads	Kegs and Boxes <sup>2</sup>	Bales	Carottes
1821–22.....	30,870	1,474	.....	.....
1822–23.....	17,542	1,641	.....	1,324
1823–24.....	25,733	2,324	.....	2,142
1824–25.....	18,049	2,321	.....	1,541
1825–26.....	19,385	1,028	.....	1,744
1826–27.....	.....	.....	.....	.....
1827–28.....	30,345	4,978	.....	2,821
1828–29.....	29,432	4,571	.....	2,137
1829–30.....	33,781	1,668	.....	631
1830–31.....	32,708	1,875	.....	1,028
1831–32.....	30,015	11,468	2,272	1,447
1832–33.....	21,361	2,841	2,822	1,800
1833–34.....	24,963	2,383	1,238	145
1834–35.....	35,787	1,393	3,204	946
1835–36.....	49,934	1,065	1,559	.....
1836–37.....	28,501	1,427	1,533	.....
1837–38.....	37,588	4,069	144	.....
1838–39.....	28,153	1,856	1,386	.....
1839–40.....	43,827	912	280	.....
1840–41.....	53,170	3,935	1,226	.....
1841–42.....	67,555	3,618	3,298	.....
1842–43.....	92,509	4,902	3,008	.....
1843–44.....	82,435	7,695	4,771	.....
1844–45.....	71,493	5,309	3,799	.....
1845–46.....	72,896	3,040	1,105	.....
1846–47.....	55,588	3,930	1,001	.....
1847–48.....	55,882	6,390	118	.....
1848–49.....	52,335	2,315	33	.....
1849–50.....	60,804	2,321	153	.....
1850–51.....	64,030	4,115	220	.....
1851–52.....	89,655	4,779	162	.....
1852–53.....	75,010	10,886	74	.....
1853–54.....	48,905	4,617	.....	.....
1854–55.....	53,348	4,153	62	.....
1855–56.....	56,090	3,599	109	.....
1856–57.....	55,067	3,261	151	.....
1857–58.....	87,141	3,006	.....	.....
1858–59.....	75,925	9,208	.....	.....
1859–60.....	80,955	14,544	.....	.....

<sup>1</sup> United States, Dept. Treas., Bur. of Statistics, *Commerce of the Mississippi and Ohio Rivers: Report on the Internal Commerce of the United States*, 1887, pp. 196, 201–202, 216–218, for the years 1821–22 to 1856–57 inclusive; for 1857–58 to 1859–60, see *De Bow's Review*, XXV, 469; XXVII, 478; XXIX, 521.

<sup>2</sup> Classified as “chewing” for the years 1827–28 to 1859–60.

TABLE 49.—*Wholesale prices of leaf tobacco at New Orleans, 1800–1861*<sup>1</sup>

Year	Price	Year	Price	Year	Price	Year	Price
	<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>		<i>cts. per lb.</i>
1800	3.5	1817	7.8	1832	4.1	1847	4.8
1801	3.6	1818	8.7	1833	5.2	1848	5.5
1802	3.5	1819	6.0	1834	6.0	1849	6.9
1803	4.9	1820	4.7	1835	7.7	1850	9.2
1804	5.2	1821	4.4	1836	7.1	1851	9.1
1805	5.4	1822	3.8	1837	4.6	1852	6.4
1806	5.5	1823	3.2	1838	8.1	1853	6.9
1807	5.5	1824	4.3	1839	13.0	1854	7.2
1808	4.5	1825	6.4	1840	8.3	1855	8.4
1809	3.9	1826	4.4	1841	8.8	1856	10.1
1810	3.9	1827	4.1	1842	5.4	1857	14.6
1811	3.7	1828	4.2	1843	4.5	1858	9.0
1812	3.2	1829	4.7	1844	4.6	1859	7.8
1813	4.9	1830	4.4	1845	4.7	1860	7.8
1814	no data	1831	4.1	1846	4.7	1861	8.5
1815	8.5						
1816	14.5						

<sup>1</sup> This price series is compiled from monthly quotations at New Orleans supplied through the courtesy of Professor George R. Taylor. A single quotation was taken for each month as near the middle date as possible. Up to 1815 quotations are in French hundredweight, and have been reduced to a per pound basis, English weight. For 1815 and 1816 some quotations are in French hundredweight and some by the pound. Those in which the weight unit is uncertain have been discarded. Up to 1816 only occasional quotations designate class or grade. From 1817 to 1819 inclusive quotations are for "Kentucky tobacco." From 1820 to 1824 inclusive virtually all quotations are for the "prime" grade, while quotations from 1825 to 1844 inclusive are for "first quality." For 1845 to 1847 inclusive quotations are for "fine," and for most of 1848 and all of 1849 for "good to choice" or "choice." For the remainder of the period quotations are for "fine," except 1850 and 1851, for which years quotations for "fair" were modified by the differential for the years 1849 and 1852. From 1845 to 1861 the designation is for leaf tobacco. For the earlier period there is usually no indication whether the quotation is for hogshead or leaf tobacco, although one or the other is indicated in occasional instances.

The yearly average price is calculated by taking the mean of the averages of the extremes of the quotations for the selected grade. Only one quotation was available for 1813, and four each for 1801, 1802, 1812, and 1815. For all the other years there are quotations for six months or more, and in most years for 12 months.

The original data for the above table were taken by Mr. Taylor or his assistants from the following sources: *Green's Impartial Observer* (Natchez), May–Dec., 1800; Feb., 1801: *The Intelligencer* (Natchez), Sept., 1801: *Mississippi Gazette* (Natchez), Oct.–Nov., 1801: *Guardian of Freedom* (Frankfort, Ky.), June–July, 1802; Apr., 1804: *Kentucky Gazette* (Lexington), Aug., 1802; Mar., 1804; June, Aug., 1820: *Tennessee Gazette* (Nashville), Sept., 1802: *Charleston Courier*, May, 1803: *Western Spy* (Cincinnati), Dec., 1803; Nov.–Dec., 1815; Feb.–Mar., Sept.–Oct., 1816: *Independent Gazette* (Lexington, Ky.), Jan., 1804: *Union or New Orleans Advertiser and Price Current* (New Orleans), May, Aug., 1804: *The Palladium* (Frankfort, Ky.), June–July, 1804; Apr., 1807: *Louisiana Gazette* (New Orleans), Nov.–Dec., 1804; Jan., 1805–Mar., 1807; May, 1807–Jan., 1812; May–Oct., 1815; Jan., Nov., 1816; Jan.–Dec., 1817; Feb., June–Dec., 1818; Mar.–Sept., Nov., 1819: *The Reporter* (Lexington, Ky.), Mar., July, 1812: *Télégraphie Louisianais* (New Orleans), Apr., 1812: *Niles' Weekly Register*, V, 33, Aug., 1813: *New York Price Current*, or *New York Shipping and Commercial List*, May, Dec., 1816; Jan., 1818; Dec., 1819; Jan., 1820; Dec., 1821; Jan., Aug., 1822; May, 1823: A merchant's price current found in the Cabildo, New Orleans, July, 1816: *Liberty Hall*, Feb., 1819: *Clarion and Tennessee State Gazette* (Nashville), Oct., 1819; June–July, 1821: *The Commentator* (Frankfort, Ky.), Feb.–Mar., May, 1820: *Baton Rouge Gazette*, Apr., Dec., 1820; Apr.–May, Aug., Nov., 1821; Feb., Sept.–Dec., 1822; Feb., 1823: *Louisville Public Advertiser* (Ky.), July, 1820; Jan.–Feb., 1821; July–Aug., 1823: *Frankfort Argus* (Ky.), Nov., 1820; Oct., 1821: *Cahawba Press* (Ala.), Mar., 1821: *The Inquirer* (St. Louis, Mo.), Mar., 1822: *Louisiana Advertiser* (New Orleans), Apr., 1822: *Missouri Republican* (St. Louis), May–June, 1822: *The Republican* (Baton Rouge), July, 1822; Jan., Mar., 1823: *Farmers' and Mechanics' Journal* (Vincennes), Apr., June, 1823: *New Orleans Price Current*, Sept., 1823–June, 1829; Jan., 1831–Dec., 1861: *Le Courier* (New Orleans), Aug.–Dec., 1829: *St. Louis Beacon* (Mo.), Jan.–Mar., Sept., Nov., 1830: *Nashville Banner* (Tenn.), May, July–Aug., Oct., 1830: *New Orleans Bee*, Dec., 1830.

These sources have not been included in the bibliography of the present work, except as they may have been used in other connections.

TABLE 50.—Average annual local prices of shelled corn per bushel in Virginia, 1801–1860, and of wholesale prices at New Orleans, 1837–1860<sup>a</sup>

Date	Virginia	Date	Virginia	New Orleans	Date	Virginia	New Orleans
	<i>price per bu.</i>		<i>price per bu.</i>	<i>price per bu.</i>		<i>price per bu.</i>	<i>price per bu.</i>
1801	\$0.61	1821	\$0.70	....	1841	\$0.56	\$0.50
1802	0.48	1822	0.64	....	1842	0.47	0.37
1803	0.76	1823	0.34	....	1843	0.41	0.33
1804	0.94	1824	0.40	....	1844	0.42	0.38
1805	0.61	1825	0.67	....	1845	0.60	0.34
1806	0.87	1826	0.55	....	1846	0.67	0.48
1807	0.43	1827	0.38	....	1847	0.50	0.68
1808	0.51	1828	0.45	....	1848	0.49	0.44
1809	0.71	1829	0.41	....	1849	0.56	0.47
1810	0.80	1830	0.62	....	1850	0.59	0.66
1811	0.69	1831	0.56	....	1851	0.57	0.51
1812	0.64	1832	0.65	....	1852	0.58	0.52
1813	0.64	1833	0.60	....	1853	0.70	0.56
1814	0.96	1834	0.72	....	1854	0.83	0.71
1815	0.95	1835	0.77	....	1855	0.61	0.89
1816	1.46	1836	0.88	....	1856	0.71	0.61
1817	0.80	1837	0.75	0.87	1857	0.65	0.73
1818	0.71	1838	0.81	0.73	1858	0.79	0.65
1819	0.55	1839	0.52	0.60	1859	0.73	0.95
1820	0.39	1840	0.52	0.52	1860	0.61	0.71

<sup>a</sup> The prices for Virginia were compiled from newspapers and other local sources by A. G. Peterson, of the Bureau of Agricultural Economics, United States Department of Agriculture. *Historical Study of Prices of Farm Products in Virginia*, 168. The prices for New Orleans were compiled by the present writer from current price quotations in New Orleans papers.

TABLE 51.—Average annual local prices of wheat in Virginia, 1801–1860, and average annual prices of flour at New Orleans, 1815–1860<sup>a</sup>

Date	Wheat	Flour	Date	Wheat	Flour	Date	Wheat	Flour
	<i>price per bu.</i>	<i>price per bbl.</i>		<i>price per bu.</i>	<i>price per bbl.</i>		<i>price per bu.</i>	<i>price per bbl.</i>
1801	\$1.27	....	1821	\$0.98	\$5.45	1841	\$1.18	\$5.17
1802	0.98	....	1822	1.09	4.86	1842	0.80	4.53
1803	1.13	....	1823	0.98	5.11	1843	0.90	3.79
1804	1.46	....	1824	0.81	5.31	1844	0.83	4.01
1805	1.23	....	1825	0.79	4.73	1845	0.97	5.25
1806	1.12	....	1826	0.80	4.42	1846	1.03	4.40
1807	0.87	....	1827	0.82	4.81	1847	1.16	5.61
1808	0.85	....	1828	1.15	....	1848	1.00	4.87
1809	1.10	....	1829	0.88	6.65	1849	1.01	4.79
1810	1.53	....	1830	0.91	3.69	1850	1.01	5.30
1811	1.41	....	1831	0.99	4.72	1851	0.81	4.07
1812	1.42	....	1832	1.07	6.31	1852	0.96	4.06
1813	0.85	....	1833	1.02	5.07	1853	1.38	5.30
1814	0.85	....	1834	0.93	4.81	1854	1.76	7.44
1815	1.43	\$9.10	1835	1.23	6.26	1855	1.67	8.71
1816	2.03	9.83	1836	1.63	7.91	1856	1.38	6.94
1817	1.67	7.25	1837	1.53	9.24	1857	1.24	6.39
1818	1.45	8.25	1838	1.43	7.81	1858	1.35	4.63
1819	0.91	10.55	1839	1.02	6.03	1859	1.30	5.64
1820	0.72	6.65	1840	0.95	4.63	1860	1.40	5.89

<sup>a</sup> Prices of wheat were compiled by A. G. Peterson, and represent prices at local markets. *Historical Study of Prices of Farm Products in Virginia*, 168. The prices of flour were compiled by the present writer from quotations in New Orleans newspapers of the period. In the earlier quotations grades are usually not distinguished, but where available the quotations represent the "superfine" grade and in other cases "first quality." When possible the averages are based on monthly quotations, but in some of the earlier years the quotations are fewer.

TABLE 52.—*Production of grain in the Southern States for the census years 1839, 1849, and 1859*

States	Corn			Wheat			Oats		
	1839	1849	1859	1839	1849	1859	1839	1849	1859
	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>	<i>bushels</i>
Alabama.....	20,947,004	28,754,048	33,226,282	838,052	294,044	1,218,444	1,406,353	2,965,696	682,179
Arkansas.....	4,846,632	8,893,939	17,823,588	105,878	199,639	957,601	189,553	656,183	475,268
Delaware.....	2,099,359	3,145,542	3,892,337	315,165	482,511	912,941	927,405	604,518	1,046,910
Florida.....	898,974	1,996,809	2,834,391	412	1,027	2,808	13,829	66,586	46,899
Georgia.....	20,905,122	30,080,099	30,776,293	1,801,830	1,088,534	2,544,913	1,610,030	3,820,044	1,231,817
Kentucky.....	39,847,120	58,672,591	64,043,633	4,803,152	2,142,822	7,394,809	7,155,974	8,201,311	4,617,029
Louisiana.....	5,952,912	10,266,373	16,853,745	60	417	32,208	107,353	89,637	89,377
Maryland.....	8,233,086	10,749,858	13,444,022	3,345,783	4,494,680	6,103,480	3,534,211	2,242,151	3,959,298
Mississippi.....	13,161,237	22,446,552	29,057,682	196,626	137,990	581,925	668,624	1,503,288	3,221,235
Missouri.....	17,332,524	36,214,337	72,892,157	1,037,386	2,981,652	4,227,586	2,234,947	5,278,079	3,680,870
North Carolina.....	23,893,763	27,941,051	30,078,364	1,960,855	2,130,102	4,743,706	3,193,941	4,052,078	2,781,860
South Carolina.....	14,722,805	16,271,454	15,065,606	968,354	1,066,277	1,285,631	1,486,208	2,322,155	936,974
Tennessee.....	44,986,188	52,276,223	52,089,926	4,569,692	1,619,386	5,459,268	7,035,678	7,703,086	2,267,814
Texas.....	.....	6,028,876	16,500,702	.....	41,729	1,478,345	.....	199,017	985,889
Virginia.....	34,577,591	35,254,319	38,319,999	10,109,716	11,212,616	13,130,977	13,451,062	10,179,144	10,186,720
Total South.....	252,404,317	348,992,271	436,099,827	30,052,961	27,893,426	50,080,642	43,015,168	49,882,973	33,210,139
Border States.....	170,969,631	224,254,121	274,761,538	26,141,749	25,063,769	41,972,766	37,533,218	38,260,367	28,540,501
Lower South.....	81,434,686	124,738,150	161,338,289	3,911,212	2,829,657	8,107,876	5,481,950	11,622,606	4,669,638
United States.....	377,531,875	592,071,104	838,792,740	84,823,272	100,485,944	173,104,924	123,071,341	146,584,179	172,643,185

States	Rye			Barley			Buckwheat		
	1839	1849	1859	1839	1849	1859	1839	1849	1859
Alabama.....	51,008	17,261	72,457	7,692	3,958	15,135	58	348	1,347
Arkansas.....	6,219	8,047	78,092	7,760	177	3,158	88	175	509
Delaware.....	33,546	8,066	27,209	5,260	56	3,646	11,299	8,615	16,355
Florida.....	305	1,152	21,306	30		8,369		55	
Georgia.....	60,693	53,750	115,532	12,979	11,501	14,682	141	250	2,023
Kentucky.....	1,321,373	415,073	1,055,260	17,491	95,343	270,685	8,169	16,097	18,928
Louisiana.....	1,812	475	36,065			224		3	160
Maryland.....	723,577	226,014	518,901	3,594	745	17,350	73,606	103,671	212,338
Mississippi.....	11,444	9,606	39,474	1,654		1,875	61	1,121	1,699
Missouri.....	68,608	44,268	293,262	9,801	228	228,502	15,318	23,641	182,292
North Carolina.....	213,971	229,563	436,856	3,574	2,735	3,445	15,391	16,704	35,924
South Carolina.....	44,738	43,790	89,091	3,967	4,583	11,490	72	283	602
Tennessee.....	304,320	89,137	257,989	4,809	2,737	25,144	17,118	19,427	14,481
Texas.....		3,108	111,860		4,776	67,562		59	1,349
Virginia.....	1,482,799	458,930	944,330	87,430	25,437	68,846	243,822	214,898	478,090
Total South.....	4,324,413	1,608,240	4,095,684	159,041	161,907	740,113	385,143	405,347	966,097
Border States.....	4,148,194	1,471,051	3,533,807	131,959	136,684	617,618	384,723	403,053	958,408
Lower South.....	176,219	137,189	561,877	27,082	25,223	122,495	420	2,294	7,689
United States.....	18,645,567	14,188,813	21,101,380	4,161,504	5,167,015	15,825,898	7,291,743	8,956,912	17,571,818

<sup>1</sup> United States Census, 1840; 1850; 1860, *Agriculture*.

TABLE 53.—*Number of horses and mules, cattle, swine, and sheep in the Southern States, 1840, 1850, and 1860*<sup>1</sup>

States	Horses and mules			Cattle			Swine			Sheep		
	1840	1850	1860	1840	1850	1860	1840	1850	1860	1840	1850	1860
Alabama.....	143,147	187,896	238,750	668,018	728,015	773,396	1,423,873	1,904,540	1,748,321	163,243	371,880	370,156
Arkansas.....	51,472	71,756	197,556	188,786	292,710	567,799	393,058	836,727	1,171,630	42,151	91,256	202,753
Delaware.....	14,421	18,856	53,211	53,883	53,211	57,721	74,228	56,261	47,848	39,247	27,503	18,857
Florida.....	12,043	15,850	24,356	118,081	261,085	388,060	92,680	209,453	271,742	7,198	23,311	30,158
Georgia.....	157,540	208,710	231,840	884,414	1,097,528	1,005,882	1,457,755	2,168,617	2,036,116	267,107	560,435	512,618
Kentucky.....	395,853	381,291	473,338	787,098	752,512	836,059	2,310,533	2,891,163	2,330,595	1,008,240	1,102,091	938,990
Louisiana.....	99,888	134,363	180,465	381,248	575,342	516,807	323,220	597,301	634,525	98,072	110,333	181,253
Maryland.....	92,220	81,328	103,235	225,714	219,586	253,241	416,943	352,911	387,756	257,922	177,902	155,765
Mississippi...	109,227	170,007	228,294	623,197	733,970	729,909	1,001,209	1,582,734	1,532,768	128,367	304,929	352,631
Missouri.....	196,032	266,986	442,815	433,875	791,510	1,168,984	1,271,161	1,702,625	2,354,425	348,018	762,511	937,445
North Caro- lina.....	166,608	173,952	202,049	617,371	693,510	693,810	1,649,716	1,812,813	1,883,214	538,279	595,249	546,749
South Caro- lina.....	129,921	134,654	137,581	572,608	777,686	506,776	878,532	1,065,503	965,779	232,981	285,551	233,509
Tennessee.....	341,409	345,939	417,227	822,851	750,762	764,732	2,926,607	3,104,800	2,347,321	741,593	811,591	773,317
Texas.....	.....	89,223	389,032	.....	930,114	3,535,768	.....	692,022	1,371,532	.....	100,530	753,363
Virginia.....	326,438	293,886	328,594	1,024,148	1,076,269	1,044,467	1,992,155	1,829,843	1,599,919	1,293,772	1,310,004	1,043,269
Total South. Border	2,236,219	2,570,484	3,603,988	7,401,292	9,733,810	12,843,411	16,211,670	20,807,313	20,683,491	5,166,190	6,635,076	7,050,833
States.....	1,532,981	1,558,025	1,986,114	3,964,840	4,337,360	4,819,014	10,641,343	11,750,416	10,951,078	4,227,071	4,786,851	4,414,392
Lower South.	703,238	1,012,459	1,617,874	3,436,352	5,396,450	8,024,397	5,570,327	9,056,897	9,732,413	939,119	1,848,225	2,636,441
United States.	4,335,669	4,896,050	7,400,322	14,971,586	17,778,907	25,616,019	26,301,293	30,354,213	33,512,867	19,311,374	21,723,220	22,471,275

<sup>1</sup> *United States Census, 1840; 1850; 1860, Agriculture.*



TABLE 54.—*Value of capital employed in manufacturing, 1840, 1850, and 1860; and value of output, 1850 and 1860<sup>1</sup>*

States	Value of capital			Value of output	
	1840	1850	1860	1850	1860
	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>
Alabama.....	2,130	3,450	7,889	4,528	10,588
Arkansas.....	424	305	1,316	538	2,880
Delaware.....	1,589	2,979	5,453	4,649	9,893
Florida.....	669	547	1,874	668	2,448
Georgia.....	2,900	5,456	10,891	7,082	16,925
Kentucky.....	5,945	11,810	20,256	21,710	37,931
Louisiana.....	6,431	5,032	7,151	6,779	15,587
Maryland.....	6,450	14,934	23,231	33,044	41,735
Mississippi.....	1,798	1,816	4,384	2,912	6,591
Missouri.....	2,704	8,577	20,034	24,324	41,783
North Carolina.....	3,839	7,457	9,694	9,111	16,679
South Carolina.....	3,217	6,053	6,932	7,045	8,615
Tennessee.....	3,732	6,528	14,426	9,726	17,987
Texas.....		539	3,272	1,168	6,577
Virginia.....	11,361	18,109	26,935	29,602	50,652
Total South.....	53,189	93,592	163,738	162,886	286,871
Border States.....	35,620	70,394	120,029	132,166	216,660
Lower South.....	17,569	23,198	43,709	30,720	70,211
United States.....	267,727	532,131	1,003,201	1,015,879	1,876,893

<sup>1</sup> *United States Census*, 1840, p. 409; 1880, II, *Manufactures*, pp. xii-xv.



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